THE ARCHITECT & BUILDING NEWS

3 MARCH 1955

VOL. 207

NO. 9

ONE SHILLING WEEKLY

- . TWO SCHOOLS FOR WORCESTER
- . DOORS: I

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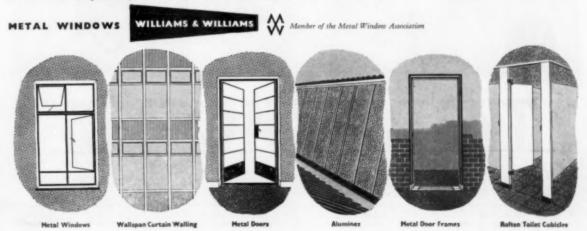


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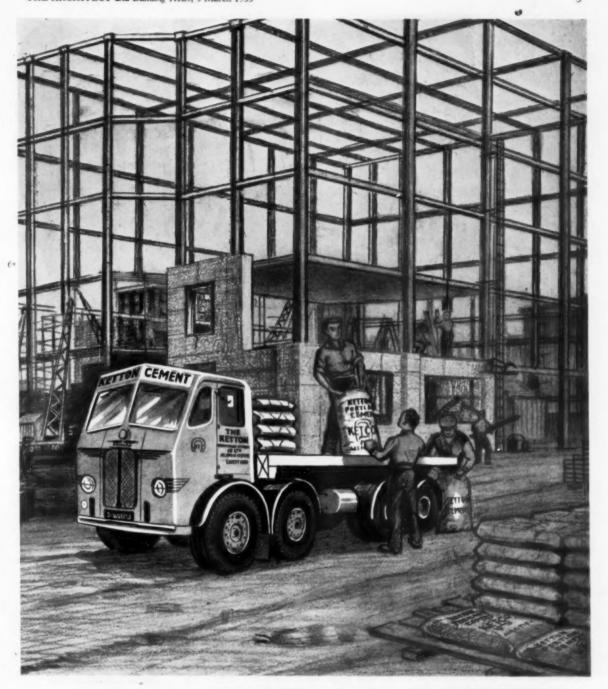
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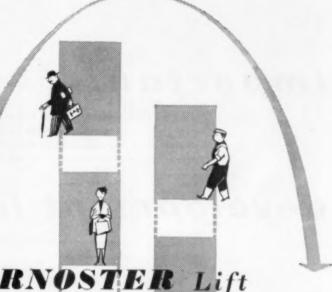
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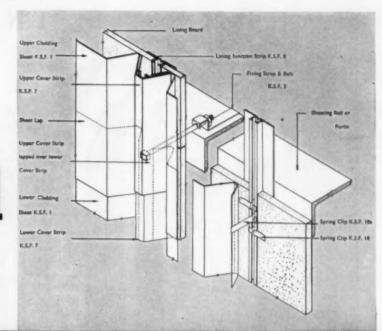
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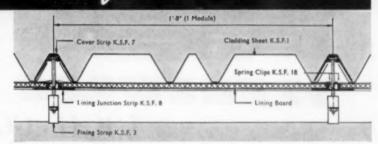
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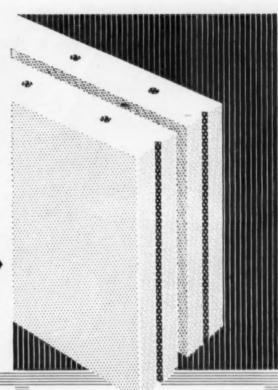
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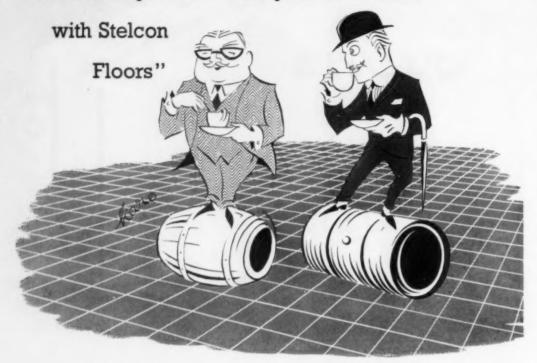
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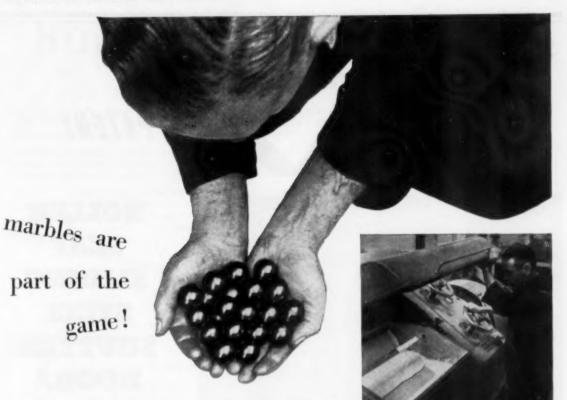
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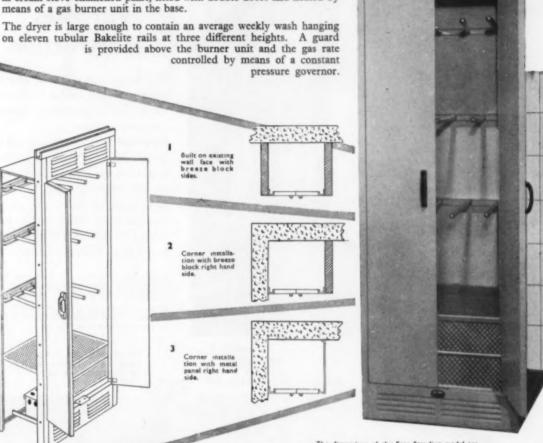
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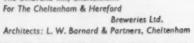
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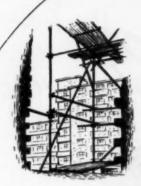




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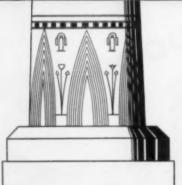
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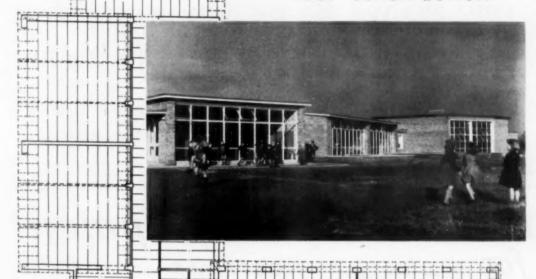
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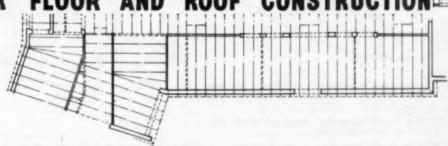


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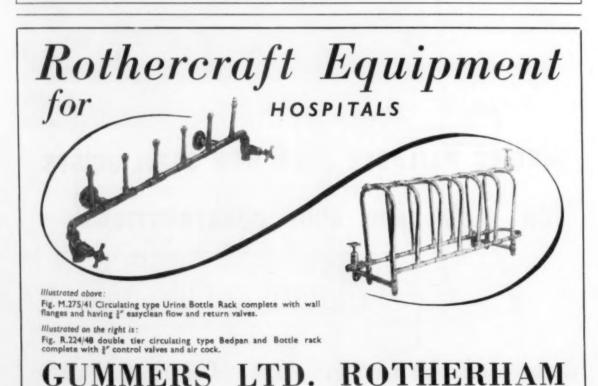
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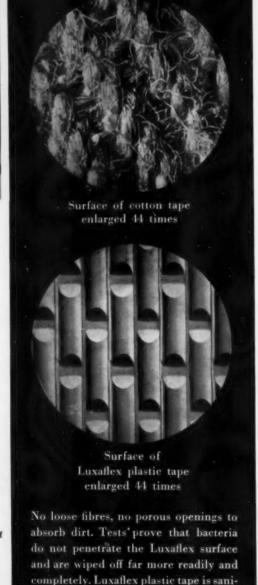
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CONTROL OF AESTHETICS

THE discussion last week at the A.A. centred round the problem of how to control the other man's design without him controlling one's own. The house was strongly against control of æsthetics on the grounds that no architect, let alone a town-planner, was good enough to be another architect's controller, paraphrasing William Morris', "No man is good enough to be another man's master." It was better to put up with all the architectural horror comics than lose one good building a year.

This was the overwhelming verdict of the architects present. The planning officers, those watch dogs who had bitten the master while barking at the burglar, retorted that if we only saw the hundreds of appalling designs that they had to vet, some by qualified architects, we should accept control with gratitude. The alternative was to drum the really bad architects out of the profession.

A typically British compromise was proposed and applauded, namely, that Parliamentary precedent should be followed of retaining the power to act but never, or "hardly ever" using it—like the old service revolver kept in the writing desk drawer. We were reminded that when the fight to get the power to control was taking place at the R.I.B.A. it had gone on record that control could not take place from outside, it must be from within. Like a man irked by the stuffy air in a railway carriage insisting on a window being opened and then complaining of the draught, we didn't like it when we had got it.

This faith in long-term education to eradicate bad taste and bad design rather than tolerate a form of censorship from non-architects or even from panels of brother practitioners, is typical of the most thoughtful opinion of the present time, a reaction from the misuse of power that has characterized our age and scared us into a mood for tolerance and freedom above all else.

The ambivalence of the situation is bound to set up strain. If the devil appeared and offered each

of us the means to obliterate in a blue flash and faint whiff of gunpowder all the buildings we dislike or despise, what a holocaust there would be, what wide open spaces would yawn! It seems a confession of failure to have to admit that we cannot devise a precision instrument to safeguard society from bad buildings without risk of an unsteady hand cutting the wrong vein. But the architect who is worth his salt always feels he is a better man than you are Gunga Din, and is advised to appeal every time against any attempt by the local authority to make him alter his design on asthetic grounds. He is very often successful as was the writer of a letter printed on another page.

Meanwhile, in various parts of the world, people are making plans to leave this planet for the moon.

LUTYENS OR MODERN?

IN a pastoral letter Mgr. Godfrey, Archbishop of Liverpool, has announced the decision to depart from Lutyens' design for the Liverpool Metropolitan Cathedral. When it was designed by Sir Edwin in 1930 the cost was estimated at £3m and time for building at about 30 years. Mgr. Godfrey writes "We are assured that to continue with the original Lutyens' design would mean an outlay of £27m and that hundreds of years would pass before the building was completed."

Mr. Adrian Gilbert Scott who was appointed to succeed Sir Edwin has prepared a revised scheme with a view to completion within about 60 years at a cost of £4m.

It is interesting to compare this situation with that which has arisen in the case of the half-finished Cathedral of St. John the Divine in New York 62 years after the foundation stone was laid and after \$15m have been spent on it.

It is estimated that if work continues on the same (Gothic) lines it will need another 14 years and cost a further \$20m to complete, and the question has been asked should it be finished in modern style.

Writing in Forum for December 1954 Mr. James Fitch, Associate Professor of Architecture at Columbia University, traces the vicissitudes of the Cathedral from the original competitions design of 1891 by Grant La Farge "Gothic in profile but Romanesque in detail," to his getting bogged down and being replaced in 1911 by Messrs. Cram & Ferguson, who superimposed a new design but still Gothic in style.

Mr. Fitch argues that "the cathedral should be finished, and finished in a thoroughly contemporary idiom just as cathedrals have always been," but adds "Nowhere is the contemporary architect so sharply confronted with the necessity for making his peace with tradition as in the field of ecclesiastical art. For here the past cannot be ignored."

In the case of Lutyens' cathedral who but he could revise it? The truth is conditions to-day have made of it a white elephant. Better that it should remain on paper and unrealized than diminished in scale and quality as in Mr. Adrian Scott's design.

A fresh start by way of a new open competition with conditions more suitable for the needs and purse of to-day would surely be preferable if it is still considered that the needs of suffering humanity can best be served by enclosing very large spaces with vast quantities of building material.

Although the late Sir Charles Reilly thought that Lutyens' design would result in one of the great buildings of the world, he regretted that there had not been an open competition for it.

EVENTS AND COMMENTS

CORRECTION

I must apologize for a prize misspelling of Svenska Slöjdverinigen last week, largely caused by my bad writing.

THE FURNITURE EXHIBITION

For some reason or other the majority of the few firms manufacturing good contemporary furniture did not show at the recent Furniture Exhibition at Earls Court. Some of them had their own shows in hotels and elsewhere. As a result of this defection from Earls Court the exhibition was even more depressing than usual. If the overall standard of design is a little higher than it was five years ago it is still deplorably low and many firms still specialize in the manufacture of hideous shapes, finished in a variety of almost unbelievable colours and textures. Indeed, some of the more bulbous and tortured creations—were they wardrobes, sideboards or cocktail cabinets?—had a glazed finish which appeared to be at least half an inch thick. I had the feeling that anything placed on a table so treated would at once slide off even if the table were level.

The good stuff was so difficult to find that my visit became a real bore. Surely now that so many of the better firms are out of this exhibition it is time for a rival show to be put on in another place during the same period. This might easily produce an exhibition of which we could be proud, and not ashamed.

HEAL'S NEW DESIGNS

This show now open in the Mansard Gallery is a good tonic after Earls Court. It includes textiles, pottery, tableware, furniture and fittings, and most of the designs are quite new. My picture shows a sideboard designed by H. E. Long, M.S.I.A. There are no startling new designs but the workmanship of all the furniture is, as usual, very good. I was delighted to see that there is scarcely a splayed leg in the place—there was scarcely a vertical one at Earls Court. Some new and inexpensive, that is by Heal's standards, kitchen cupboards designed by Christopher Heal, F.S.I.A., caught my eye but I was unable to inspect them closely for the press of woman's page editors, shop sleuths, lynx-hounds and other shiny operators. Seen through gaps in the A & H line they looked good.

Heal's have wisely included some examples of their very best quality work. Most of it is very good indeed, but a large Chesterfield full of bulging curves and decked with circular and near circular cushions, though very comfortable, would, I thought, have been more at home at Earls Court.

GERMAN ARCHITECTURE TO-DAY

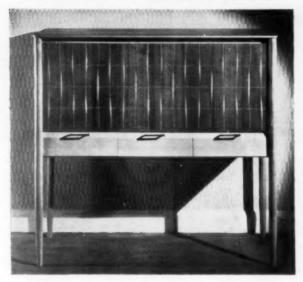
I mentioned this exhibition last week and you will also have seen some illustrations taken from it. A fuller review appears on another page. The German Ambassador, who opened the exhibition on Wednesday, February 23, explained that he was not learned in architecture but that the exhibition dealt with two periods in Germany, up till 1933 and since 1945. He said, too, that Germany had a lot to learn from Britain and particularly mentioned the large number of parks (140—L.C.C. figure) in London. His Excellency also praised our schools. He described the exhibition as a message of good will from Germany and hoped that it would contribute towards a better understanding between the two countries and to the reopening of the friendship which existed before the first war.

I think it is an impressive exhibition and as is usual with small, highly selective shows, it gives the impression of a very high standard of architecture throughout Western Germany. I understand, however, that the buildings illustrated at the R.I.B.A. are virtually the lot and that generally speaking, and my own observation confirms this, the standard of reconstruction work is mediocre. It is clear, however, from the wide variety of interpretation of the modern approach to architecture shown in the buildings that there is a strong feeling of individualism among the best German architects. An individualism sadly lacking in much of the work being produced by comparable architects here.

FUEL OIL

Two events which took place recently indicate the mounting interest in the use of oil for heating. Charringtons, the well-known coal merchants, deadly rivals of oil fuel you might well have thought, held a party 10 days ago to open a permanent display of domestic oil-burning appliances, including those for converting existing solid fuel boilers, at their showrooms in Henrietta Place, London, W.1. Charringtons are very proud of their fuel oil delivery service, which is largely aimed at the domestic consumer; for delivery they use metred tanks, which, I believe, is unique.

The second event was the launching of a new film, "Oil Fuel," by the Esso Petroleum Co. at the Royal



Sideboard designed by H. E. Long.

Empire Society last week. The film deals in simple terms with the basis of combustion and economics of oil firing, followed by sequences showing various types of oil-burning equipment and the application of oil firing. All this is put over excellently, and as an introduction does its job, but I would liked to have seen the application sequence extended to include oil-firing systems for different types of building. Architectural schools and Allied Societies who are interested can obtain 16mm copies of the film, free on loan, from Industrial Sales Division, Esso Petroleum Co., 36, Queen Anne's Gate, S.W.1, or from Divisional offices of the Company at Bristol, Warwick, Manchester and Glasgow.

GAS AND THE IDEAL HOME

This year at the Ideal Home exhibition, the gas theme is "The Happy Home," which is also the title of a prodigious volume on house management produced by the Gas Council. It is the size of book which one would expect to read from a lectern. Naturally there are new, and better gadgets—cookers with eye-level grills; whose eye level? Cookers in coloured finishes, a good mark for that. Two new refrigerators and a gas-electric washing machine. This last is the first sign of co-operation between these two madly competing fuel producers—unless, of course, you count the battery-operated gas pistol.

$\begin{array}{ll} THE & ENGLISH & ELECTRIC \\ COMPETITION \end{array}$

It is a regrettably rare occurrence to find informed opinion agreeing with the assessors in an architectural competition. The English Electric competition, which was fully reported last week, is an exception to the general rule. Everyone seems to agree—and that includes at least one of the unsuccessful competitors—that Mr. Gordon Tait's design was the best. Let us hope that it will be built.

Another interesting point about the competition was the frankly contemporary approach of eight out of the nine competitors. As someone put it, there was only one

design which used the wall-pierced-by-windows technique

I do not know how the competitors for this limited competition were remunerated, but it did seem to me to be putting them to unnecessary expense to require a complete elevation to \(\frac{1}{2}\)in scale as well as all the rest of the drawings.

The wise decision of Sir Percy Thomas and Mr. J. Murray Easton has done something to restore the prestige of the competition system, which has suffered a number of setbacks in the last year or two.

OH, LUTYENS! OH, LIVERPOOL!

It is difficult to know what to say about Mr. Adrian Scott's proposals for the Roman Catholic Cathedral at Liverpool. Whatever one thought of Sir Edwin Lutyens' original design it was certainly imposing, monumental and even breathtaking in its scale, massing and silhouette. The pup that Mr. Scott has produced could never be any of these things. It seem incredible that he should have attempted the "modifications" (as *The Times* calls it) of the master's design.

From even a quick comparison of the elevation and perspective published in The Times it is clear that the building would never look as shown in the perspective. Compare, for example, the heights and projections of the drum and the base of the drum of the dome. There is no foreshortening on the perspective and the silhouettes of the elevation and perspective are almost the same. This could never be so from the viewpoint used. In fact, the dome would appear even more of a pudding on a plate than it does in the sketch. It is a most unhappy project both in conception and execution. From the standard of the drawings published, the scheme is in its earliest stages, and we may therefore hope that the Royal Fine Art Commission, by expressing itself in the firmest possible terms sufficiently soon, will enable second thoughts to be taken before everyone is committed.

MORE ABOUT LIVERPOOL

Architectural students of Manchester and Liverpool Universities have been conducting a series of raids on each others' schools accompanied by the removal of



Perspective by the late Cyril Farey of Sir Edwin Lutyens' design for the R.C. Cathedral at Liverpool. The revised design reduces the dome from 520 feet high to 320 feet.

property. The Manchester students took Augustus John's fine portrait of the late Professor Sir Charles Reilly. It was decided that this was too hot to hold and it was returned the next morning. Oddly enough, I admired the portrait on my recent visit to Liverpool and had since discussed and compared it with another portrait of the professor, by a different artist, in the possession of Mr. Paul Reilly.

THIRD LONDON SAPPER REUNION

Ex-sappers will be glad to hear that the third London Sapper Reunion will be held at the Duke of York's Headquarters, Chelsea, S.W.3, on Saturday, April 30. Full particulars from Hon. Sec., R.E.A., London Group, Room 31, Horse Guards, Whitehall, S.W.1.

L.M.B.A. PRESIDENT ON EFFICIENCY

Mr. L. J. Holloway, speaking to members of the L.M.B.A. at Kenton recently, stressed the need for efficiency of the individual master builder. Better education, a greater interest in craft apprenticeship and in the progress of entrants to the industry; the promotion of courses for foremanship; the need for better management. and better team work were among the planks of Mr. Holloway's scaffold.

ABNER

German Architecture To-day Exhibition

I N the exhibition at the R.I.B.A. of over 150 photographs, many of which are accompanied by small thumb-nail plans or sections, a short but active period of post-war rebuilding in Western Germany is repre-sented. Exactly how short the exhibit does not make clear. This is not ten years' work but scarcely more than six, as the building programme which the photographs represent did not get under way until the stabilization of currency in 1948. Before this both material and moral forces were in eclipse and their amazingly active reemergence is one of the chief facts given by the exhibition.

In the catalogue Otto Bartning, president of the Bund Deutscher Architekten which prepared the exhibition, refers to the problem which it posed to the selection committee-what action had been demanded of the German architects and how effectively had it

been carried out.

The almost complete destruction of many of the large cities produced a building programme which included nearly all possible building types. Housing the individual (and flats comprise the largest section of the exhibit) was combined with an extension of his activities in two directions by (1) industrial, commercial, educational and public buildings, and (2) opera houses, concert halls, cinemas, exhibition buildings and churches. Here was an opportunity to plan for the whole environment, but regrettably there were too many insoluble problems and difficulties for this to be taken. It would have been interesting to see some of these city planning issues illustrated or discussed in the catalogue-which gives much information about individual buildingsbut this aspect is not dealt with. The buildings are regarded as isolated social elements in the community and as examples of architectural design.

On this basis, however, the photographs do not offer adequate information. Perhaps the effort to present a social document has protected exciting details in the most interesting buildings from the emphasis they deserve. Consequently it is only through our knowledge of these, previously obtained from the German technical press (a magazine table is provided in the exhibit) that they can be related to the Jugendstil and the standards of Hans Poelzig, Peter Behrens, Walter Gropius, Mies Van der Rohe-in the way the catalogue and the first nine photographs suggest.

As a result of this disappointing austerity in the selection of photographs which might do justice to the buildings as something more than façades, the potential impact of the exhibition is missing and general characteristics must be relied upon to form impressions. It is unfortunately here that an apparent uncompromising attitude to concrete structure is unduly emphasized and perhaps falsely. In the multi-storey slab buildings such as the blocks of flats and commercial buildings the desire to distinguish between the function of concrete skeleton and skin has led to many façades which may seem mechanical. These tend to accept the consequences of rectilinear skeletons and new or traditional materials used as infilling but to take this idea so far and no further. For this reason it would have been particularly interesting to have more photographs of the work of Professor Egon Eiermann, whose inventive treatment of skeleton and skin structures is not adequately illustrated, of the apartment block by Otto Apel in Frankfurt, or of the Glass Industry Building in Dusseldorf by Bernhard Pfau. Also some indication of the interest in grouping of blocks of flats taken by the architects working with Otto Apel and Hermann Mattern in the housing scheme in Bad Godesberg.

Bernhard Hermkes, whose three brilliant structures for the International

Horticultural Exhibition held in Hamburg in 1953 are included, is better served and his Book Garden is one of the few examples in the exhibition of three photographs which draw unmistakable attention to the human experience which can lie waiting behind the façades of buildings. Several of the buildings attempt to relate murals and sculpture to architecture, again an indication of the moral recovery following the desperate 1945-1948 period. The Concert Hall of the Academy of Music in Berlin designed by Paul Baumgarten is an especially good example of this. Professor Sep Ruf has made an attempt in Nuremburg and in Munich to design buildings which will not "offend" existing conditions, and there are several other variations in direction represented, notably Professor Hans Scharoun's design for the State Theatre in Cassel which is now under construction after widespread The boldness of action opposition. which is implicit here and also in Mannheim where a National Theatre is being built indicates the current of ideas which is flowing after so short a time and the human needs which survive wartime annihilation and exert their influence on architecture.

GEOFFREY HOLROYD

The University of Liverpool Appointments

At the recent meeting of the Council of the University two appointments were made to posts in the Department of Civic Design. Mr. Paul Brenikov, B.A., Dip.C.D., A.M.T.P.I., was appointed Lecturer and Studio Instructor, and Mr. David H. Crompton, A.R.I.B.A., A.M.T.P.I., was appointed Leverhulme Research Fellow and Lecturer in Civic Design.

The Senate has awarded a Leverhulme Postgraduate Fellowship in the Department of Civic Design, tenable for one year, to Mrs. Earley, who was educated at the Polytechnic School of

Architecture.

In Parliament

London's Theatres

The Minister of Housing and Local Government, Mr. Sandys, threw some new light on the controversy about the future of St. James's Theatre—and others—in an answer he gave to Mr. G.

The L.C.C., he said, recently gave planning permission in principle for the replacement of St. James's Theatre by an office building. He was informed by Mr. Prince Littler, part-owner of the site, that the application for this permission was made without his knowledge, or that of his partner, and that they had no present intention of demolishing the theatre or selling the site. On the contrary, Mr. Littler assured him that he was most anxious to do what he could, consistent with the economic running of his business, to preserve this well-known London theatre.

While St. James's Theatre undoubtedly possessed character and charm, the exceptional concern which this prospect had evoked was not based solely on architectural considerations. Nor could it be wholly accounted for by distress at the possible disappearance of a famous playhouse with sentimental associations. Behind these feelings there was, he believed, the understandable fear, that if one by one other West End theatres were similarly to disappear, London's renowned position in the world of drama would be endangered.

He had discussed the wider issue with representatives of the L.C.C., and they were considering what practical action was open to them, in their capacity as planning authority, to help safeguard the future of London's theatres. (Feb. 22.)

Overspill Plans

Mr. I. Rodgers asked the Minister of Housing and Local Government for a statement on current negotiations involving the Department's approval for sites to house the London County Council overspill population outside the county area. Mr. Sandys told him that the L.C.C. were discussing schemes with representatives of the councils of Letchworth, Basingstoke, Peterborough and Ashford (Kent). The schemes under discussion related to the possibility of expansion, under the Town Development Act, with a view to absorbing some of the excess population from London. (Feb. 22.)

No Sound Reason

Mr. Chapman (Birmingham, Northfield, Lab.) asked the Minister of Housing and Local Government whether he would reimburse the Birmingham City Council for the cost of sound-proofing the floors on the Egghill estate, Birmingham, since the faulty construction was to specifications of the Government's Building Research Station. Mr. Sandys' answer was: "No. It would not be appropriate." (Feb. 15.)

Local Responsibility

Mr. Chapman questioned the Minister's decision that it would be inappropriate to reimburse the Birmingham City Council for the cost of soundproofing floors on its Egghill estate. after the failure of the Building Research Station specifications. Sandys replied that a local authority must be responsible for its own decisions on matters within its discretion. In this instance ample guidance was available in the Technical appendices to the Housing Manual, 1944, which stated the limitations of the method previously described in the B.R.S. Digest No. 15. He had no information about the cost of the work which the city council had thought fit to carry out, and had had no discussions with the council. (Feb. 22.)

Brighton Pavilion

The Minister of Works, answering a suggestion by Mr. Teeling that a grant should be made to the Royal Pavilion, Brighton, said that the Historic Buildings' Council, while welcoming the valuable work that was being done, had not felt able to recommend a grant towards the cost of repair. (Feb. 22.)

Falling Tenders

Mr. McInnes asked the Secreary of State for Scotland if he would indicate the average tender price for a fourapartment non-traditional and traditional house, respectively, for the years

1952, 1953 and 1954.

Commander Galbraith, Under Secretary, stated that during the last three vears for which figures were available —up to September, 1954—there had been a substantial fall in average tender prices both for traditional and non-traditional houses. The fall was particularly marked in the last year. In these circumstances, when the market had been falling, it would not be in the public interest to give actual figures. (Feb. 23.)

Firm Refusal

Mr. Monslow asked the Minister of Works if he would take steps to control the cost of building material. Mr. Birch-No. (Feb. 22.)

January Vacancies

Mr. Watkinson, Parliamentary Secretary, Ministry of Labour, told Mr. Lee that the notified vacancies unfilled on January 12 in the electrical engineering, civil engineering, and building industries were 11,687, 5,017 and 17,006 respectively; but the fact that a vacancy was not filled on a particular date did not necessarily mean that they were unable to fill it reasonably soon. (Feb. 22.)

Ideal Home Exhibition

From my first glance round the Exhibition on Monday, I thought the Regency theme of the main hall by Malcolm Haylett colourful and in better taste than usual. I could find little new to excite me on the stands I visited except in the television feature where 46 different sets could be compared. Clifford Culpin's model flatlet, an impression of the accommodation for the new Y.W.C.A. in Ebury Street, is good and comes as a relief from the furnishings of the contemporary suburban villas of the Village which have the sort of clichés which I am beginning to find rather According to the official handout, the pilot design of the flatlet was executed by Trevor Smith, the Daily Mail Ideal Home Exhibition architect in association with Mr. Hopwell-Ash.
The highlight of the Village is the Unity Flats which are being shown I believe for the first time. I thought the accommodation rather cramped. especially the dining space and boys' room. Don't miss the Regency rooms of Beau Brummell, the Duke of Wellington, Sheridan and Mrs. Fitzherbert.

Industrial Re-location in the Midlands

At the Town and Country Planning Association on Wednesday of last week, Mr. Ernest Holden, Midland secretary of the National Union of Manufacturers, outlined how the small industrialists, each employing about 20 or fewer persons, were associating together in Wolverhampton and Birmingham, and in friendly co-operation with the Planning Authority, would soon be rehabilitating themselves from slum areas into factory colonies. doing, they would not only be helping themselves into new buildings with first-rate modern working conditions but they would be making an important contribution to the town planning needs of those cities. That was, in essence, their answer to the incidence of widespread planning development and redevelopment, which forced many thousands of industrialists into solving the resulting problems of relocation and often hardship.

This made encouraging hearing and one hopes that others will follow suit and, by setting aside inhibitions against town planning, enable private, as well as public, enterprise to join hands in drawing upon the benefits which can be obtained from real, positive town planning. For, as Mr. Holden said, what can be done in Wolverhampton and Birmingham can surely be done in London and elsewhere to achieve a friendly relationship between the plan-

ner and the planned.

Such a desirable spirit of co-operation, however, can hardly be fostered by the attitude of those who persist in unfairly maligning the 1947 Act, from which the development charge has, rightly or wrongly, been rescinded.

After all, as the chairman of the meeting rightly pointed out in proposing the vote of thanks, many of its most important provisions were aimed at encouraging just this co-operation in redevelopment as had been established in Birmingham, and while they were still operative.

These Midland industrialists, who so courageously repeat the energies, foresight and good sense of the famous Joe Chamberlain of nearly 100 years ago, aim to set up factory colonies as near as possible to ring roads. By so doing they will meet the needs of the Development Plan for clearing "re-development areas" from non-conforming users, for assisting the transport problem of avoiding overcrowding in one direction with the corresponding absence of passengers in the opposite direction during peak hours, for improved supply of heavy goods to factories and, in particular, to avoid industrialists being removed too far, in point of time, from their present location. Since these smaller industrialists manufacture goods, components and accessories for larger concerns who may not be able to move, one can appreciate that this economic interdependency must not be severed by bad location.

The means to achieve these very desirable ends is assured by building on a co-operative basis, the advantages of which include reduction in building costs and use of land by the sub-division of large buildings where important services and canteen facilities, not normally possible from individual resources, can be provided. Multistorey or flatted factories were not a sound proposition except where the industries were craft trades requiring no heavy equipment or storage of goods such as would require expensive and heavy structures for taking heavy loads

on the upper floors.

Apart from rehousing industry within existing industrial cities, some decentralization was considered to be in the interests of some industrialists because they were desperately in need of more labour and a large labour potential existed in the rural towns and villages only a few miles away. Industry, he stressed, should not be located on the periphery of towns and thus endanger the Green Belt from further suburban sprawl. The Green Belt was an asset to industrialists in stopping town spread which placed such an uneconomic burden upon journeys to work.

Fears that heavy industry defiled the countryside were unjustified because modern architecture was fully capable of designing attractive factory buildings. (I venture to suggest that even the critics of the modern movement in architecture would at least concede that.) There was no need, therefore, for the rural authorities to be afraid of some heavy industry and to insist upon only receiving light industry into their districts. By such insistence they overlooked economic inter-dependence between heavy and light industry.

Under the direction of an experienced supervisor, inexperienced work-people could readily adapt themselves to factory life without any lessening of quality or quantity of production. Also, agriculture often benefited from school-leavers of families settled in rural areas being attracted to agricultural employment. Nor must the importance of proximity to airfields near to outlying townships be overlooked as providing for the ever-increasing demand for air transport of industrial

Questioned on these rural advantages to industry being reduced by the absence of rail transport, Mr. Holden said that there was a great need for remodelling of the existing rail systems to meet the changing pattern of industrial location even within the cities themselves, as well as in the country. The railway authority must be pre-pared to face re-adjustment and follow industry to its new locations.

Once again the industrial Midlands have set the ball rolling for redevelopment as they did for the 1944 Act. It is good to hear that the capacity of the architect to design attractive factories in accord with their setting is confidently acknowledged in answer to the rural "receiving" authority's fears in accepting heavy industry as part of the programme of re-location. Even so, there must be very careful selection of town or village before committing it to so large an expansion as will inevitably follow in the wake of industry and with particular regard for the and with particular setting.

change involved in their setting.

D. P.

R.A.

Sir Hubert Worthington, O.B.E., A.R.A., F.R.I.B.A., is one of the newly elected Royal Academicians.

COMING EVENTS

The Faculty of Architects and Surveyors

March 7, at 7 p.m. General Meeting. Four Papers will be read, "Party Walls," by D. J. A. Lock; "The Diswans, by D. J. A. Lock; "The District Surveyor and Fire Regulations," by B. C. Deavin, "Are Traditional Materials Soon to Disappear," by M. Littman; and "The Cost of Building and the Architect," by John Carter, A.R.I.B.A. At Caxton Hall, Westminster, S.W.1 ster, S.W.1.

The South Eastern Society of Architects

March 8, at 7.15 p.m. Announcement of Chapter Prizes—Social Evening arranged by Past and Present Students of the Canterbury School of Architecture. At Canterbury College of Architecture, St. Peter's Street, Canterbury.

Royal Society of Arts

March 9, at 2.30 p.m. A Paper on "The Beauty of Stained Glass" will be read by Carl Edwards, at John Adam Street, Adelphi, W.C.2.

CORRESPONDENCE Criticism of R.I.B.A. Prize

Drawings

To the Editor of A. & B. N. Sir,—May I add a few if belated remarks arising out of the criticism of the

R.I.B.A. prizes.

After listening to Mr. Erith and reading the various reports in the A. & B. N. about the evening's events I am more than ever convinced that there is a great deal wrong with architecture, especially among the students.

It is not within the scope of a letter to probe too deeply into this, but Mr. Erith certainly touched on the key to the problem, a fact that must have escaped many of those who listened, myself at the time included.

This key, in my opinion, lay in his words, that "the idea which led to the Gothic revival had run its course and had reached its final conclusion.'

We still seem to strive in architecture after a formal expression of something architecture is no longer qualified to express. We still seem to put the emotional potentialities and certain superimposed ideas of what the building should be before the function, in spite of all the talking, in fact, we are trying to add "something" beyond the "mere" function, before a truly "functional" approach has ever had a real chance!

When shall we realize that architecture in the first place means giving a sincere answer to a building problem. If this is accompanied by discipline of form such a building will not lack in emotional impact. "Truth" is so emotional impact. "Truth" is so rarely given a chance and hence "beauty" is sought elsewhere.

But perhaps only the teacher with a wide experience of good building can disseminate this "truth" and only the student with a creative imagination can absorb it.

> I am, etc., H. WERNER ROSENTHAL

"Bungalow Objected To" To the Editor of A. & B. N.

Sir,-The article on the Bidston Hill bungalow in the February 11 issue was of very great interest because of my own recent experience.

Having chosen an architect living close to my building site, I asked for a modern single-storey house to be designed. The resulting plans were submitted to the local council only to receive prompt refusal because "the type and elevational treatment would not have been æsthetically in keeping with surrounding houses and therefore not in the interests of the amenities."

Shortly afterwards came the departure for Canada of my somewhat frustrated architect; his last task in this country was to assist in arranging an appeal to the Ministry. Fortunately, I was a very confident client and able to conduct my own case at the public

Part of my evidence was based on personal visits to my future neighbours on all sides of the site. Whilst no one





Roundway House, Devizes, Wilts. (See letter below)

enthused over the design, no one objected to it. This was not a form of salesmanship, only simple reasoning. The Minister's decision was in my favour because of "insufficient evidence to support the Council's claims."

It will be seen from all this that I received extremely fair treatment from the Inspector and his Ministry. Public opinion was certainly taken into consideration, too.

So for Bidston Hill with its frowning neighbours, I regret to forecast a negative result—I only hope in the interests of modern architecture that I am so very wrong.

I am, etc., K. A. Rogers.

To the Editor of A. & B. N.

Sir,—I thought that you would be interested to know of the decision of the Ministry of Housing and Local Government to allow our appeal against the decision of the Birkenhead County Borough Council. In the course of his letter he makes the following comment:—

"In the Minister's opinion the proposed building is a well-designed, economical modern bungalow of pleasing proportions, and the site is such that the bungalow should not in any way clash with the design of the other buildings nearby. In fact he considers that a horizontal building as proposed will form a pleasant foil to the three silver birch trees on the land. The Minister accordingly allows the appeal and grants permission for the erection of the bungalow in accordance with the submitted plans."

I am, etc., J. Roy Parker.

[A perspective drawing of this house was published in A. & B. N. of February 10 with the heading "Bungalow Objected To."—ED., A. & B. N.]

Construction Games

To the Editor of A. & B. N.

Sir,—I was interested to read your comments in the issue of *The Architect & Building News* of January 27 on the subject of children's bricks and constructional games.

A London firm does, in fact, sell

boxes of toy building equipment, together with the plans for constructing such buildings as a semi-detached house, a railway station, a bus shelter, and so on. The range of buildings that can be built varies, of course, with the size and cost of the box of equipment. All the buildings are brick built and a special mortar is supplied which has the advantage that it can be removed by dissolving in water when it is desired to construct another type of building. A trowel, rules and levels are also provided, together with window frames, doors and other components. The provision of plans in the kit gives added value to the toy from the educational point of view. I do not know of any toy system of construction embodying prefabricated wall panels and partitions such as you suggest in your note, but doubtless some of the manufacturers will be turning their attention to this possibility before long.
As you suggest, toys of this kind—

As you suggest, toys of this kind—apart from their fascinating intrinsic qualities—do help to awaken a keen and lively interest in building matters among the younger generation, and this the industry is the first to welcome.

I am, etc., WILLIAM D. BRYANT.

The A.B.S.

To the Editor of A. & B. N.

Sir,—A recent sight of some A.B.S. case histories led me to count the subscribers named in its Annual Report, and to compare their number with that of architects listed in the Register; in round figures the respective totals were 4,000 and 18,000.

There may be among the 14,000 some who would feel inclined, whenever they got a new commission, to give a present to the A.B.S., and others who would do the same whenever their salary was raised. Couldn't we spare ten shillings, or a pound on every such lucky day? It would mean a lot to our less lucky contemporaries, and would lighten the work of the good people who manage the A.B.S.

This work is done on behalf of the whole profession, and should therefore be supported by all. Let us all act so that in next year's A.B.S. report the wide difference which gave rise to these thoughts will have disappeared.

I am, etc., H. G. C. Spencely.

"Roundway House," Devizes, Wilts

To the Editor of A. & B. N.
Sir,—We act for the owner of the above property which is in the course of demolition and we enclose two photographs of the fine Bath stone facade and Bath stone mullioned windows which were designed by James Wyatt in 1780.

We feel that, rather than blow it down, the stonework is so fine that someone, somewhere, would be glad to make use of it or perhaps part only, but we seek advice as to how to bring it to the notice of architects who might make use of it.

We should much appreciate any assistance you can give us.

We are, etc., FERRIS & CULVERWELL,

4, Market Place, Devizes.

[If possible this house should be saved. We are, however, glad to bring this letter to the notice of readers who may have other ideas.—ED., A. & B. N.]

York Course on Timber

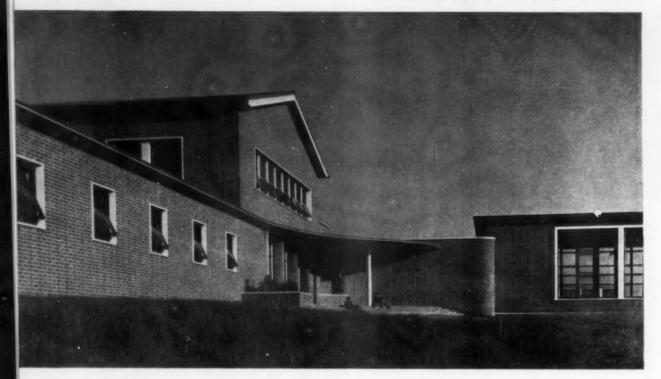
A residential week-end course on "Timber as a Structural Material in Building" will be held at St. Mary's Hotel, York, from April 1 to 5. The aim of the course is to study the various ways in which timber is used for this purpose, with particular reference to modern techniques.

The course is intended primarily for practising architects, surveyors, clerks of works and builders. It will provide for a maximum of 16 resident members, but a few non-resident members can also be accepted.

The fee will be eight guineas, comprising three guineas for tuition and

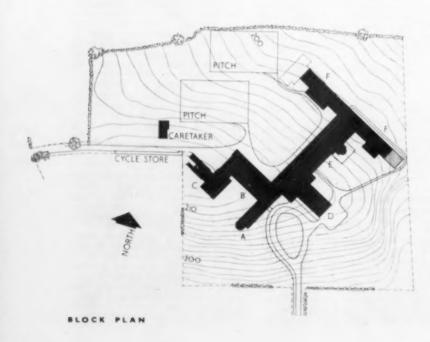
five guineas for accommodation.

Applications for admission (enclosing a non-returnable deposit of £2) should be made to the Secretary, The York Institute of Architectural Study, St. Anthony's Hall, York. Tel.: York 54711, not later than March 7.



Main Entrance

NUNNERY WOOD SECONDARY MODERN SCHOOL for the City of Worcester Education Committee



architects:

E. B. MUSMAN

& PARTNERS

Frederic Saunders

Quantity Surveyor

Detail of Entrance

EARLY in 1949, the County of the city of Worcester Education Committee invited Architects to submit designs in competition for a new Secondary Modern School. The school was to be a two-form Entry in the first instance for Boys and Girls for ages 11-15 for the accommodation of 320 pupils and ultimately it was to be extended. At some later date it was intended to erect a separate Girls' School for 320 pupils on the site adjoining with identical accommodation.

After the award had been made, a change in policy took place and the author of the winning design, Mr. E. B. Musman, B.A., F.R.I.B.A., was asked to prepare a plan for an entirely fresh scheme for a four-form Entry School for Boys and Girls mixed, ages 11-16 to accommodate 600 pupils, 300 boys, 300 girls, thus abandoning the idea of providing two separate schools and embodying the total accommodation in one mixed school. A new layout was accordingly prepared on these lines which had to be further amended to comply with Circular 209 which had just come into operation. The accompanying plans and photographs show the final scheme.

The site selected for the school is on the outskirts of Worcester, the main approach being off Spetchley Road, with a service road via Nunnery Lane. The surroundings have a fine view of Nunnery Wood and the open country. There is ample space for playing fields as the City Corporation owns most of the adjoining land.

The layout embodies several interesting features which the Education Authority were anxious to incorporate.

The main consideration in siting the classrooms has been the view. These have been planned along the line of contours to the north-east overlooking Nunnery Wood. They are also on two floors. Consideration, however, had to be made for as much direct sunlight in the classrooms as possible. This has been attained by omitting the connecting corridor on the first floor and providing direct-clerestory lighting from the south to the ground floor classrooms and full window area to the south for the first-floor classrooms, each pair on the first floor being served by a separate staircase.

The Headmaster and the Medical Inspection Officer have been separated from the rest of the teaching staff. These offices are sited close to the main Entrance Hall but off the main circulation of the school. The Staff and Senior Teachers' Rooms are in a group in a central position off the main spine corridor. This enables the staff to mingle freely with the pupils, encourages contact and removes the feeling of awe felt by the pupils on approaching the Staff Quarters when they are isolated from the main buildings and activities.

The Assembly Hall, Gymnasium and Dining Room have been planned off the main entrance hall so that these units can be used for evening and outside activities without interfering with the school curriculum.





Assembly Hall



Entrance Hall

Covered Way

Folding Display Screen, Art Room



Nunnery Wood Secondary School

Externally the use of brickwork was strongly favoured and this treatment accordingly has been employed by the Architect; the walls being finished with a facing brick of a pleasing pinkish tone and flush pointed.

The frame, floor and roof slabs are in reinforced concrete.

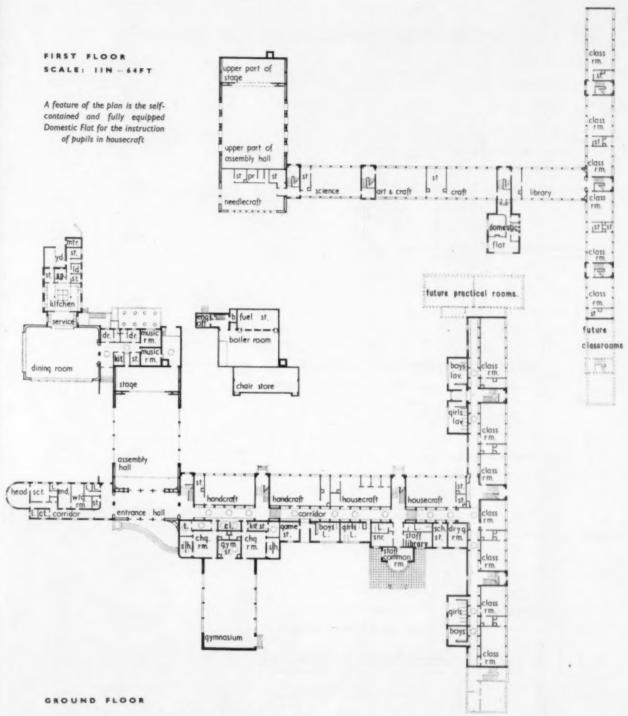
Approval has been obtained from the Ministry for the addition of three classrooms at the N.E. end of the Classroom Block. These are to be erected as soon as possible. Provision has also been made at the N.W. end of the same block for two additional practical rooms. No indication has yet been given as to when this work will be put in hand.

Decoration

Soft pastel shades have been generally used with one or two highly coloured patches here and there to provide contrast and interest. Wall paper has been used in the Administration and Staff Wings and the Domestic Flat. Cement glaze in soft shades of green/blue, yellow and ivory have been used in teaching rooms, corridors and lavatories. Composition tile floors have been laid in a chequer pattern and the surface of the tiles is mottled. By employing this method the objectionable effect of a dirty floor caused by scars and heel marks is greatly minimized.

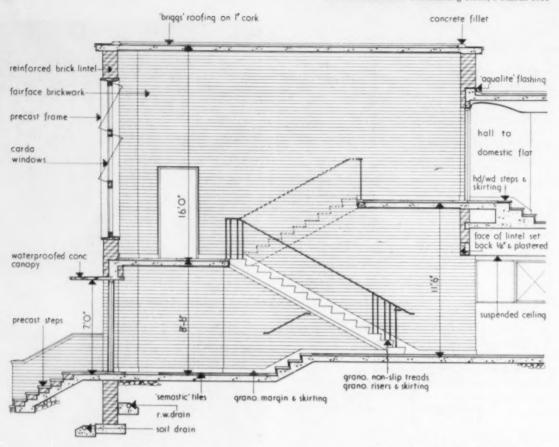
The Proscenium Curtain in the Assembly Hall has been specially designed as a tribute to Sir Edward Elgar, who was a citizen of Worcester and of whom the City is justly proud.

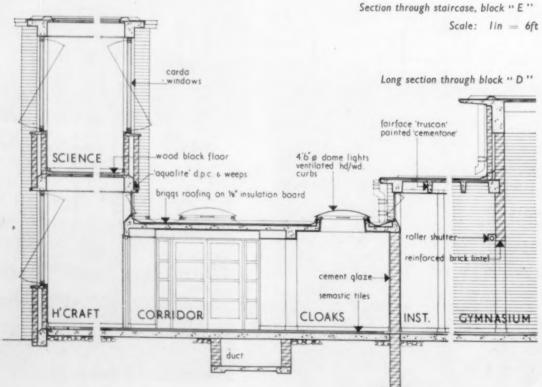


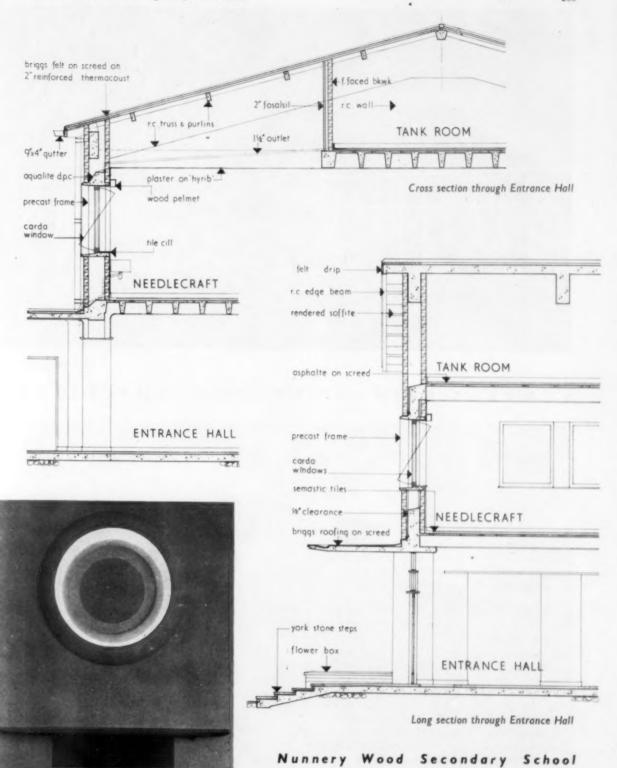


General Contractors: Simms, Sons & Cooke Ltd.

Acoustic Tiles: Midland Wallboards Ltd. Ash Hoist: Herbert Morris Ltd. Block-out Curtains: W. & F. Webb Ltd. Bricks: Finnis & Nicholls Ltd. Broadcast Equipment: Sound Diffusion Ltd. Cement Gloze: Quickset Water Sealers Ltd. Cholkboards: Wake & Dean Ltd. Clookroom Equipment: A. J. Binns Ltd. Cycle Shelter: Croft, Granite Brick & Concrete Co. Ltd. Electrical Engineers: Midlands Electricity Board. Electric Fires: Revo Electric Ltd. Fire Equipment: Read & Campbell Ltd. Flooring: Anglo-Italian Flooring Co. Ltd.; Holls Bross. Ltd. Flush Doors: Jayanbee Joinery Ltd. Furniture (special): Rowley Productions Ltd. Gymnosium Equipment: The Educational Supply Association Ltd. Handrails, Ladders and Gates: George Wright (London) Ltd. Heating, Water and Gas Installations: Weatherfull Heating Systems Ltd. Innongery: Taylor Pearse & Co., Ltd. Laboratory Equipment: George & Backer Ltd. Light Fittings: Benjamin Electric Ltd.; Phillips Ltd.; Troughton & Young: Walsall Conduite Ltd. Light Fittings: Benjamin Electric Ltd.; Phillips Ltd.; Troughton & Young: Walsall Conduite Ltd. Light Fittings: Benjamin Electric Ltd.; Phillips Ltd.; Troughton & Young: Walsall Conduite Ltd. Light Fittings: Benjamin Electric Ltd.; Phillips Ltd.; Troughton & Young: Walsall Conduite Ltd. Light Fittings: Benjamin Electric Ltd.; Phillips Ltd.; Troughton & Young: Walsall Conduite Ltd. Light Fittings: Benjamin Electric Ltd.; Phillips Ltd.; Troughton & Young: Walsall Conduite Ltd. Light Fittings: Benjamin Electric Ltd.; Phillips Ltd.; Troughton & Young: Walsall Conduite Ltd. Light Fittings: Benjamin Electric Ltd.; Phillips Ltd.; Troughton & Young: Walsall Conduite Ltd. Light Fittings: Benjamin Electric Ltd.; Phillips Ltd.; Troughton & Young: Walsall Conduite Ltd. Light Fittings: Benjamin Electric Ltd.; Phillips Ltd.; Troughton & Young: Walsall Conduite Ltd. Light Fittings: Benjamin Electric Ltd.; Phillips Ltd.; Troughton & Young: Walsall Conduite Ltd. Light Fittings: Ltd. Benjamin Electric Ltd.; Phillips Ltd.; Troughton & Young: Walsall Conduite Ltd. Light Fi







Lighting and heating unit, Entrance Hall



From south-east

NUNNERY PRIMARY SCHOOL, WORCESTER

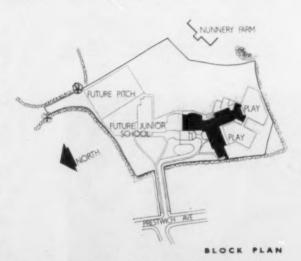
architects:

E. B. MUSMAN & PARTNERS

THIS school, commissioned in December 1951, adjoins the Nunnery Wood Secondary School. The school is to be organized in two departments—infant and junior—under separate head teachers and, whilst the architects were instructed to prepare complete plans, only the Infants section, giving accommodation for 240 children, was to be built as the first stage. The complete scheme will provide spaces for a further 320 juniors giving a total of 560 places.

An initial difficulty in siting the building was caused by the existence of a petrol pipe line, bisecting the site, under the control of the Ministry of Fuel and Power, who would not allow any building nearer than 10 feet to the pipe line. As the Infants section was necessarily planned as a single storey, the final proposals took up a proportionately large area of the site, further aggravating the situation. It was finally agreed with the Ministry of Fuel and Power that when the second stage was built the pipe line could be diverted within strictly specified limits.

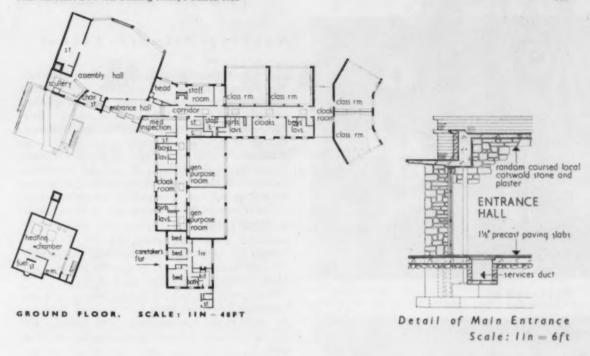
Complete freedom in planning was not, therefore,



possible, but every effort has been made to allow as much direct sunlight to the classrooms as the conditions of siting would permit.

Each section of the school is to have its own entrance and Assembly Hall and, as it is not expected that it will be much used out of school hours, the halls are conceived as being for the children's use only, having movable platforms and physical education equipment. They will also be used for meals but, in the first stage, only a small scullery is being provided. A combined dining hall for

[Continued on page 266



for the City of Worcester Education Committee





Classroom



Assembly Hall

Nunnery Primary School

Continued from page 264]

both juniors and infants would have been preferable. The Entrance Hall of the completed Infants section leads directly to the Assembly Hall and adjacent Head teacher's Staff and medical inspection rooms. From this point the corridors to classrooms and cloakrooms lead off at right angles embracing two sides of one of the paved playing areas. There are secondary entrances through the cloakroom bays. In planning this section, the architects had in mind the need to create an informal atmosphere and have attempted to capture this in the shapes of some of the classrooms and the slight changes in corridor levels.

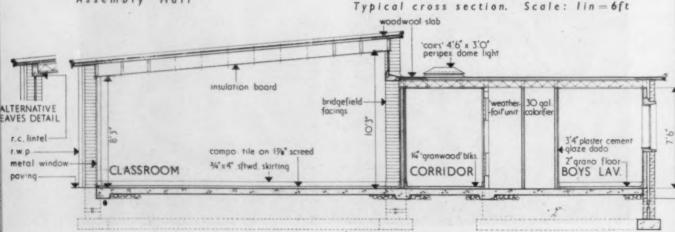
construction and finishes

Light but not strident colours have been used throughout with occasional accents of brightly coloured wallpaper, contrasting with the natural brick piers.

Structurally, the building is load bearing brickwork supporting lightweight metal joists and roof decking to the corridors and teaching areas. The Assembly Hall and boiler house are in reinforced concrete clad with brickwork.

quantity surveyor: Frederick Saunders general contractor: Spicers (Builders) Ltd.

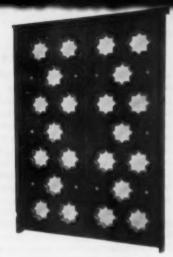
Broadcast Equipment: Audix B.B., Ltd. Ash Hoist: Herbert Morris, Ltd. Bricks: W. T. Lamb & Sons, Ltd. Chalkboards: Kingfisher, Ltd. Cloak-room Equipment: Cloakroom Equipment, Ltd. Dome Lights: William J. Cox, Ltd. Electrical Installation: Rashleigh Phipps & Co., Ltd. Electric Fires: Revo Electric, Ltd. Entrance Gates: George Wright (London), Ltd. Fire Extragaishers: L. & G. Fire Appliance Co. Flooring: Cranwood Flooring Co., Ltd.; Rowan & Boden, Ltd.; Stuarts Granolithic Co. Gymnasium Equipment: Olympic Gymnasium Co., Ltd. Heating and Hot Water Installation: Weatherfoil Heating Systems, Ltd. Ironnongery: James Gibbons, Ltd. Lettering: Dales (Lettering), Ltd. Lighting Fittings: Falk Stadelmann & Co., Ltd.; Troughton & Young (Lighting), Ltd. Mats: United London Werkshops for the Blind. Paints: Hadfields (Merton), Ltd. Precast Concrete: Alexander Stone Co., Ltd. Roinforced Concrete: The Trussed Concrete *teel Co., Ltd. Roofing: Permanite, Ltd. Roof Deck: Thermacoust Co., Ltd. Roof Joints: Metal Sections, Ltd. Sanitary Fittings: John Bolding & Sons, Ltd.; O'Brien Thomas & Co., Ltd. Toilet Partitions: Venesta, Ltd. Willpaper: Arthur Sanderson & Sons, Ltd. Windows (Metal): W. G. Kaleyards, Ltd.



Doors-1

This is the sixth article of the series which are appearing once a month dealing with building accessories.

The next article will deal with industrial doors.



THERE are two classes of timber doors which are mainly used for housing, offices and non-public buildings. These are doors made from solid material with timber or glass panels and flush panel doors. This introduction deals with these two main classes which form the bulk of the material for this article. Domestic garage doors and metal doors are also mentioned.

Flush Panel Door Sizes

Mass-produced external doors of 1\(\frac{1}{4}\) in fin. thickness are generally accepted in the industry, although B.S.459 calls for 1\(\frac{1}{4}\) in thickness. Mass-produced internal doors are either 1\(\frac{1}{4}\) in or 1\(\frac{1}{4}\) in. fin. thickness, the latter being in more general demand. A standard door thickness has the advantage that it allows different doors of stock size to be fitted into the same frame rebate, thereby simplifying the manufacture of frames and linings.

The widths and heights of doors in the B.S.S. are very widely accepted by the industry, but there is an ever-increasing demand for alternative sizes which have to be made as "specials." Specials have to be taken off, billed and manufactured separately. The materials used or methods of manufacture are not necessarily altered, but instead of thousands per run, specials can only be made in the quantity ordered, and consequently their price is usually higher and there may be delay in manufacture and delivery.

Solid Frame Doors

The majority of doors in this class are for internal use (ex 1½in) or external use (ex 2in) with plywood or glass panels. Many of these are covered by B.S.459: Part 1. The B.S. type doors are usually manufactured from 11in and 2in Canadian door stock which is clear British Columbian pine and/or hemlock, rift sawn; during the shortage of this timber a number have been manufactured from Parana pine and European red deal. A full list of suitable and permissible timbers is listed in B.S.459: Part I. Joints used in manufacture are either dowell or mortice and tenon; if the latter is required it is essential to state so when ordering. The dowelled joint has been almost universally adopted for standard doors because it saves timber, speeds up production and is more adaptable to line assembly; considerable research and advances in resin glues have made it virtually trouble-free. The quality of plywoods employed for these groups are laid down in the appropriate B.S. specification. Glazing beads

are normally mitred in and temporarily fixed. Weatherboards are not an integral part but are grooved for and supplied as requested. Casement doors or "fully glazed", as they are normally termed, are manufactured from the same materials, but, of course, all glazing bars are morticed and tenoned into stiles. Glazing beads are not normally included in the standard supply and should be ordered if required.

Pre-war type doors in this class other than those to B.S. design are still manufactured and kept in stock. Popular demand has made them virtually a stock line.

Framed, ledged and braced doors and ledged and braced doors are fully covered by the B.S.459 Part IV. Whether for internal or external use they do not vary in any way; the former are of mortice and tenon joint construction with joints water-resisting-glued or oil-painted. They may be painted, stained or treated with wood preservative and it is important to make this clear when ordering so that the tongues of the boarding may be painted if required.

Large numbers of doors are manufactured which vary slightly from the specification mentioned previously. Common variations are a solid bottom-rail into which the boarding is tongued or rebated, or shoulders of all joints to be pinned with dowels. Garage doors in normal use are generally constructed as framed, ledged and braced doors. If glazed, they should be provided with stout glazing bars and putty glazed externally.

Flush Panel Doors

This class of door is of stressed skin construction. The skins may be of any suitable material to take the desired decorative or natural finish and to-day's demands are normally met with plywood faces, hardboard, veneers or plywood with decorative outer veneer. One of the essential features of the construction is to maintain an even pull on both sides of the door and similar skins should be used, preferably from the identical batch of manufacture. When plywood is used the sheets on both sides of the door should be veneered with the same species. If a door is to be finished with a decorative veneer on one side and paint finish on the other, it is essential that a veneer of the same species is added on the "paint" side as on the veneer side, and it should also be equal in tensile stress; the veneer for painting, however, may be of an inferior quality. Finishing flush doors differently on two

Doors introduction

sides is not desirable as the pull of a paint surface may

be different from that of a polished one.

The framing of a flush panel door should be adequate to receive butts and screws and mortice or rim lock, and in the case of external entrance doors, letter plates, locksets and weatherboards, if they are to be fixed to the door. All doors manufactured under B.S. specifications cater for such fittings, but should blocking be required for kicking plates, sliding door gear, coat hooks, etc., these would have to be stated and the doors specially made to accommodate them.

The infilling of a flush door can be of any material which will adequately keep a state of equilibrium between the two skins and give them proper support against impact. Most manufacturers have experimented with core materials other than timber, particularly for internal flush doors, and a number of cores have been developed with complete success. Such cores are claimed to be inert and not much affected by moisture under normal and semi-abnormal conditions. Common forms are wall board strips, Stramit, corrugated board in multi laminations, fibreboard honeycombed and chipboard.

Flush fire check doors of both half-hour and one-hour

type are clearly shown in B.S.459: Part III.

Certain manufacturers have developed alternative constructions. One of these which has been officially tested has a core frame similar to external entrance doors with an infilling of "Stramit." The facings are 6-millimetre plywood to half-hour, type 13in fin. thick and 6mm. metalfaced plywood to one-hour type 2½ in fin thickness

Manufacturers and Suppliers

Framed and Flush Doors

ALLAN BROS. & CO., LTD., Tweed Saw Mills, Berwick-on-Tweed. Berwick 443/4.

Tweed Saw Mills, Berwick-on-Tweed. Berwick 443/4.

AUSTINS OF EAST HAM, LTD.,
Barking Road, London, E.S. Grangewood 3444/9.

H. BAKER & CO., LTD.,
77 North Street, Portslade-by-Sea, Sussex. Hove 48243/5.

BOULTON & PAUL, LTD.,
Riverside Works, Norwich. Norwich 25251.

BRYCE, WHITE & CO., LTD.,
Deseronto Wharf, Langley, Slough, Bucks. Langley 232.

D. BURKLE & SON, LTD.,
174-8 Elthorne Road, London, N.19. Archway 4061.

CROSBY & CO., LTD.

CROSBY & CO., LTD., Lion Works, Farnham, Surrey. Farnham 5291/3.

CRUDENS, LTD., Musselburgh, Midlothian, Scotland. Musselburgh 2244/6.

DURHAM TIMBER CO., LTD., Castle Wharf, Hampton, Middlesex. East Molesey 1234/7.

Castle Wharf, Hampton, Middlesex. East Molesey 1234/7.
SAMUEL ELLIOTT & SONS (READING), LTD.,
Caversham, Reading, Berks. Reading 71536/7.

EXEAU PRODUCTS, LTD. (Flush Doors only),
Great Cambridge Road, Enfield, Middlesex. Enfield 3859
GLIKSTEN DOORS, LTD.,
Carpenters Road, London, E.15. Amherst 5588.

JOHN HERRING & CO.,
Skinnerburn Road, Newcastle-upon-Tyne 4. Newcastle 33128.

33128.

HILLS & SONS, LTD.,

F. HILLS & SONS, LTD.,
Norton Road, Stockton-on-Tees. Stockton 67141.

JAYANBEE JOINERY, LTD.,
High Street, Uxbridge, Middlesex. Uxbridge 2590.

JENNINGS (BRISTOL), LTD.,
Pennywell Road, Bristol. Bristol 56041.

WILLIAM KAY (BOLTON), LTD.,
Minerva Saw Mills, Bark Street, Bolton. Bolton 3925.

WALTER LAWRENCE & SON, TD.,
Sawbridgeworth. Herts. Sawbridgeworth 2171.

Sawbridgeworth, Herts. Sawbridgeworth 2171. LEADERFLUSH, LTD., Trowell, Nottingham. Ilkeston 623.

LINDEN DOORS, LTD., Packet Boat Dock, Cowley Peachey, Middlx. West Drayton

3021.

MAGNET JOINERY, LTD.,
Whitley Street, Bingley, Yorks. Bingley 3547/9.

MANOR JOINERY WORKS, LTD.,
Barking By-pass, Barking, Essex. Rippleway 3052.

MERCHANT TRADING CO., LTD.,
Effingham House, Arundel St., London, W.C.2. Temple
Bar 5303.

MORGAN & PARTNERS

MORGAN & PARTNERS, Cowley, Uxbridge, Middlesex. Uxbridge 8551/2. RIPPERS, LTD., Castle Hedingham, Halstead, Essex. Hedingham 191.

Castle Hedingham, Halstead, Essex. Hedingham 19.
RUSH BROS. & CO.,
Bull Lane, Aintree, Liverpool, 9. Aintree 2361.
JOHN SADD & SONS, LTD.,
Maldon, Essex. Maldon 131.
JOSEPH SANDELL & CO., LTD.,
101 Waterloo Road, London, S.E.1. Waterloo 5211.

SARO LAMINATED WOOD PRODUCTS, LTD., 45 Parliament Street, London, S.W.1. Trafalgar 6291.

SCOTTISH SPEEDWELL CO., LTD. 245 Crownpoint Road, Glasgow, S.E. Bridgeton 1143/4.

243 Crownpoint Roda, Glasgow, S.E. Briageton 1145/4.

SOUTHERNS, LTD.,

Bold Saw Mills, Widnes, Lancs. Widnes 2641.

H. T. TENNISON & CO., LTD. (Framed Doors only),

21 Story Street, Hull, Yorks. Hull 36902/3.

THAMES PLYWOOD MANUFACTURERS, LTD. (Flush Doors only), Harts Lane, Barking, Essex. Rippleway 5511/6.

VENESTA, LTD. (Flush Doors only), Vintry House, Queen Street Place, London, E.C.4. Vintry House Central 3060.

WATT TORRANCE, LTD.,
Maxwell Road, Glasgow, S.1. Pollok 3063/4.
WEST SURREY INDUSTRIES (BYFLEET), LTD.,
High Road, Byfleet, Surrey. Byfleet 3066, 2277 or 3594.

Metal Doors

BOLTON GATE CO., LTD., Waterloo Street, Bolton, Lancs. Bolton 4240.

G. BRADY & CO., LTD., New Islington Works, Manchester, 4. Collyhurst 2797/8.

CRITTALL MANUFACTURING CO., LTD., 210 High Holborn, London, W.C.1. Holborn 6612/9.

CURFEW DOORS & SHUTTERS, LTD. Ancoats, Manchester, 4. Collyhurst 3908

ECLAIR DOORS, LTD., 239-242 Gt. Lister Street, Birmingham, 7. Aston Cross 4061.

ESAVIAN, LTD., Esavian Works, Stevenage, Herts. Stevenage 500.

JOHN GIBBS, LTD., Kings Heath, Birmingham, 4. Highbury 2213.

HASKINS, LTD., Blackhorse Lane, London, E.17. Larkswood 2622.

HAYWARDS, LTD., 187-193 Union Street, London, S.E.1. Waterloo 6035. HOME FITTINGS (GREAT BRITAIN), LTD., Bethesda Road, Tumble, Llanelly, South Wales.

HENRY HOPE & SONS, LTD., Halford Works, Smethwick, Birmingham. Smethwick 0891.

MACLEAN & CO. (METAL WINDOWS), LTD., Cadzow Works, Hamilton, Lanarkshire. Hamliton 1410/4.

MATHER & PLATT, LTD., Park Works, Manchester, 10. Colyhurst 2321.

MORRIS SINGER, LTD., Forest Road, London, E.17. Larkswood 1055/6.

E. POLLARD & CO., LTD., St. John Street, London, E.C.1. Clerkenwell 6701.

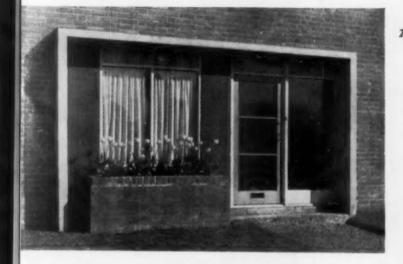
POTTER RAX, LTD., Shepperion Road, London, N.1. Canonbury 6455.

ROLLER SHUTTERS, LTD., 239-242 Gt. Lister Street, Birmingham, 7. Aston Cross 4061.

WESTLAND ENGINEERS, LTD., Yeovil, Somerset. Yeovil 1109. WILLIAMS & WILLIAMS, LTD.

Victoria House, Southampton Row, London, W.C.1. Holborn 9861/5.







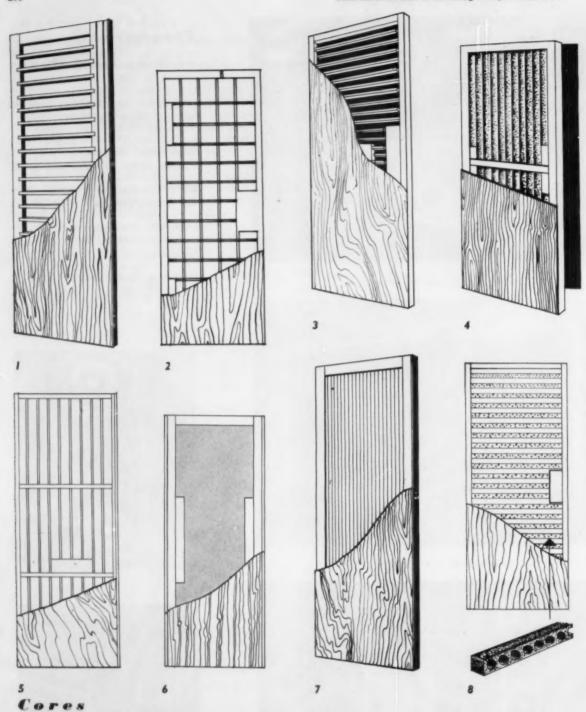
Treatment of Standard Doors

- 1. Entrance door, house at Studham. Architect: MacFarlane Widdup.
- 2. Standard casement, L.C.C. cottages, Hampstead. Architect: Robert H. Matthew, former Chief Architect, L.C.C.
- 3. Entrance, house at Highgate. Architect: Stephan Gardiner.
- 4. Entrance door, house at Sunbury-on-Thames. Architect: Basil Spence & Partners.
- 5. Standard Steel casements, house at Reigate. Architect: George Lowe, F.R.I.B.A.





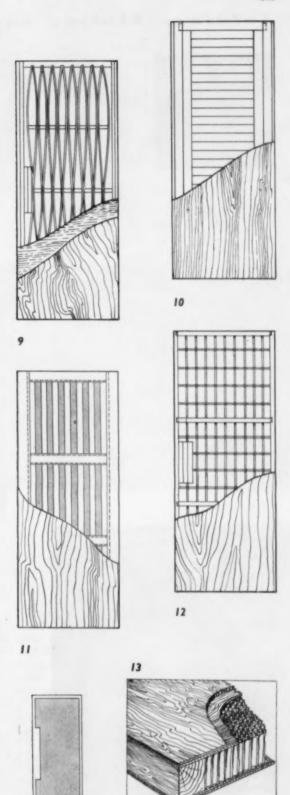
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1. Slatted timber core by West Surrey Industries (Byfleet) Ltd. 2. Type "H.D." square cell by Leaderflush Ltd. 3. "Clymax" hollow slatted core by F. Hills & Sons Ltd. 4. Solid core I\frac{1}{2}in x 2in "Stramit" interfilling by Bryce, White & Co. Ltd. 5. "Grangewood" slatted timber core by Austins of East Ham Ltd. 6. Type "D" sound-resisting door filled with insulating and fungus-proof fibre, by D. Burkle & Son Ltd. 7. Solid timber core by West Surrey Industries (Byfleet) Ltd. 8. "Durador" with I\frac{1}{2}in "Kreibord" rails with I\frac{1}{2}in spacing, by F. Hills & Sons Ltd. 9. "Thamesply" skeleton light hardwood strips 3\frac{1}{2}mm thick with intermediate rails (and photograph) by Thames Plywood Manufacturers Ltd. 10. Type "A" solid core of Western Red Cedar by D. Burkle & Son, Ltd. 11. Semi-solid timber core with I\frac{1}{2}in vertical and 3\frac{1}{2}in horizontal members by Merchant Trading Co., Ltd. 12. "Sasco" 149 cells 4\frac{1}{2}in x 2\frac{1}{2}in formed with \frac{1}{2}in hardboard members halved together, by Southerns, Ltd. 13. "Multigon" with fibrous honeycomb core. This sound-absorbent door can be supplied by Jayanbee Joinery, Ltd. or Joseph Sandell & Co. Ltd.

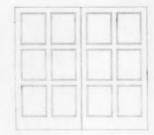


" Thamesply " core frame

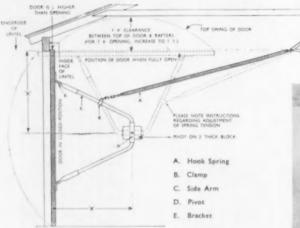


Folding, Sliding and Up-and-Over Doors

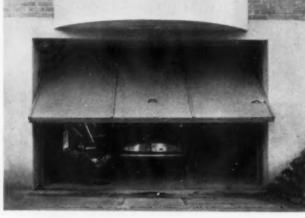




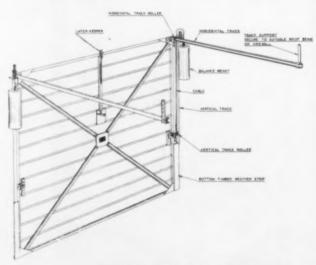
Typical timber garage doors to B.S.S. 459. These are normally side hung, opening outwards, but they may be modified for operation with certain overhead door gear.



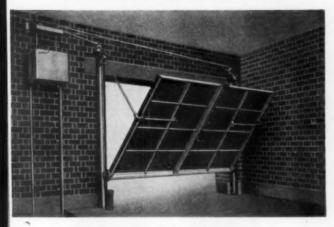
Distance 'X' varies with the height of the door The Acrow "Up and Over" garage door fitting, Model 1. The illustration below is of a door, designed by Leonard Manasseh & Partners, fitted with this mechanism.



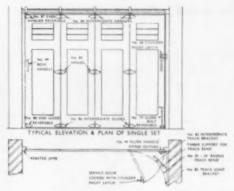




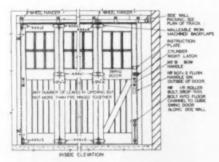
Mechanism of the Welrise Door, picture left, by Westland Engineers Ltd.



" Eclair" balanced door, by Eclair Doors Ltd.



"Radial Minor" by Clarke Ellard Engineering Co. Ltd.



"Cornaway 444" Angle Sliding Door by E. Hill Aldam & Co., Ltd.



" Cornaway 444 "

The "Modernfold" door, below, by Homefittings (Great Britain) Ltd. requires no floor track. Wide choice of colours available.



Garage Door Gear

Acrow (Engineers) Ltd., South Wharf, London, W.2. Ambassador 3456.

British Track & Trolley Co. Ltd., 49 Copperfield Street, London, S.E.I. Waterloo 4311.

Clarke Ellard Engineering Co. Ltd., Works Road, Letchworth, Herts. Letchworth 613/4.

Curfew Doors & Shutters Ltd., Ancoats, Manchester, 4. Collyhurst 3908.

Eclair Doors Ltd., 239-242 Great Lister Street, Birmingham, 7. Aston Cross 4061/2.

Esavian Ltd., Esavian Works, Stevenage, Herts. Stevenage 500.

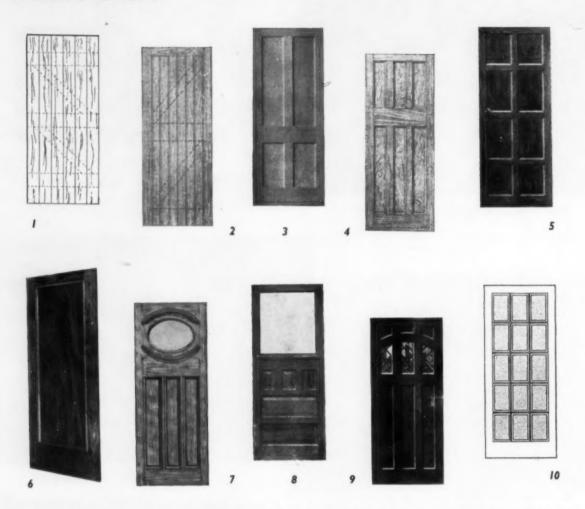
P. C. Henderson Ltd., Tangent Works, Barking, Essex. Rippleway 3406.

E. Hill Aldam & Co. Ltd., Britannic Works, Haslemere Avenue, London, S.W.18. Wimbledon 8080.

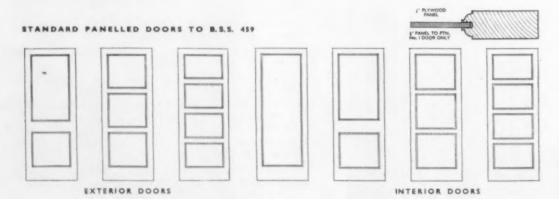
Westland Engineers Ltd., Yeavil, Somerset. Yeavil 1109.

George Winnall & Son Ltd., 200/2 Newhall Street, Birmingham 3. Central 1711/2.

Framed Doors



Miscellaneous Doors. 1. Ledged and braced, by Bryce, White & Co. Ltd. 2. No. YX(120), by Southerns Ltd. 3. No. 44, by Merchant Trading Co. Ltd. 4. No. 99, by Southerns Ltd. 5. No. 422, moulded three sides, finishing on chamfer, by Samuel Elliott & Sons (Reading) Ltd. 6. "Ambassador" bolection mould, laminated single panel mahogany faced door, by F. Hills & Sons Ltd. 7. "Lindoco" No. G.Y. external panel door, by Linden Doors Ltd. 8. Exterior door, type 51, by Walter Lawrence & Son Ltd. 9. No. 5 oak front door, by Joseph Sandell & Co. Ltd. 10. Type S.A. (Patt. 77) casement door, by Crosby & Co. Ltd.



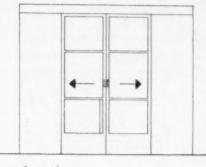
FLUSH PANEL DOORS (Interior and Exterior)

Supplier	Core Details	Star	ndard Measureme	ents	Vancous	Domarka	
Jupplier	Core Details	Height	Width	Thickness	Veneers Available	Remarks Prices: 26/9 (hardboard) upwards. Arrangement of cellular core variet with plywood and hardboard doors Specials to architects' designs Doors supplied to BSS.459. Windows can be inserted. Fire resistant doors to B.S.S.	
ALLAN BROS. LTD.	Standard core is of ex 1½" wide framing with a midrail and cel- lular egg box wood assemblies in top and bottom halves. For exterior doors framing is ex 2"	6' 0" and 6' 6" non-standard heights on re- quest	Plywood: 2"0", 2'3", 2'6", 2'9" Hardboard: 1'6", 1'9", 2'0", 2'3", 2'6", 2'8", 2'9", Non-standard widths on request	Interior: 1½" and 1½" nom. Exterior: 1½" nom.	African Mahogany, Sapele, Sycamore, African Walnut, Honduras Mahogany Makore, Bukinga, Avodira Elm, Teak, Australian Maple, French Walnut, Aus- tralian Walnut, Birch, etc.		
AUSTINS OF EAST	Slatted timber core for both hardboard and plywood doors	6' 6"	1' 6", 1' 9", 2' 0", 2' 6", 2' 9"	Interior: 18" and 18" Exterior: 18"	Only as veneered boards	Windows can be inserted. Fire check doors made.	
H, BAKER & CO. LTD.	To BSS,459 or as specified by architect	6' 6" and 6' 8", some at 6' 0" for cupboards, etc.	2' 0", 2' 3", 2' 6", 2' 8", 2' 9"	Interior: 1½" and 1½" Exterior: 2"	Occume, Gaboon, Swedish Pine	Prices: £2 approx. (stock internal doors) to £24. (Purpose made front doors — oak, etc.) Acoustic doors, slag-wool packed and fire-proof asbestos wood lined. Specials supplied to architecta' designs. Windows can be inserted. Doors supplied b BSS. 459	
BOULTON & PAUL	Cellular or slatted (skeleton or semi-solid) as required	6. 6.	1' 9", 2' 0", 2' 3", 2' 6", 2' 9"	Interior and Ex- terior 18" and 18"	Painting quality only as available at time of manufacture	Price: 28/6 to 100/ Doors supplied to BSS.459. Windows can be inserted	
BRYCE, WHITE &	(A) Solid core of 1½" x 2" Stramit interfilling with 1½" x 2" timber stiles, top, middle and bottom rails (B) Semi-solid core with ½" x 2" Stramit vertical ribs with 1½" x 1½" Timber stiles, top, middle and bottom rails (C) Solid laminated and slatted cores	(1) 6' 0" (2) 6' 4" (3) 6' 6" (4) 6' 6" (5) 6' 8"	(1) 2' 0" (2) 2' 4" (3) 2' 9", 2' 6", 2' 4", 2' 3", 2' 0" (4) 1' 9", 1' 6"° (5) 2' 8"	ig" fin, hard- board flush and oak veneered flush. ig" fin, ply flush ig" fin, ext, ply flush	Oak, Mahogany, Walnut and Teak, Other veneers to order	Standard doors hardboard panels lipped both styles—oak panels lipped one style, plywood panels lipped and plain. External ply panels lipped and plain. External ply panels lipped one style; also with window (three sizes). Specials to architect design. Fire check and acoustic doors made Note * Hardboard only	
D. BURKLE	Solid, semi-solid or skeleton. Type A: solid core of kiln dried Western Red Cedar Type D: sound insulating and fungus proof fibre	Any	Any	All	Any type supplied	All doors purpose made. Plastic faced panels can be supplied. Will make to BSS.459	
CROSBY & CO. LTD.	5" x 5" lattice cell core	6'0", 6'3", 6'4", 6'6", 6'8" and 6'10"	Any width from 2'9" to 1'6"	1½", 1½", 2" nom.	Any type supplied	For internal and external use, windows can be inserted. Specials to architects' designs. B.S.S.459 and fire resistant doors made	
CRUDENS LTD.	Square Mesh cell	6'6", non-stan- dard heights on request	2' 9", 2' 6", 2' 3", 2' 0", 1' 9", 1' 6" Non-standard widths on request	Iğ" and Iğ" Specials on re- quest	-	Price: 1§" at 32/6, 1§" at 30/ Internal and external supplied. Specials to architects' designs if quantity sufficient. Doors can be made to 855,459. Windows can be inserted. Fire resistant doors made	
DURHAM TIMBER CO. LTD.	Lattice core or as specified by architect	6' 6" Non-standard heights on re- quest		2" and 1½" nom Non-standard on request	Any type supplied	Interior and exterior doors sup- plied. Windows can be inserted. Will make to BSS.459. Specials to architects' designs. Fire re- sistant doors made	
SAMUEL ELLIOTT & SONS (READING) LTD.	Solid—soft or hardwood framed "Tabula" framed and solid in- sulated. Semi-solid framed	Any height on request	Any width on request	Any thickness on request	Any type supplied	Price: from 80'- each. Internal and external doors made to BSS.459. Specials to architects' designs. Windows can be inserted. Semi- flush doors also supplied	
EXEAU PRODUCTS LTD.	(1) "Marvel" type "M "—vertical rectangular cell construction (2)" Betta-Flush " "Externa " and "Decor-Flush " types — vertical rectangular cell construction as above but containing more cells		2' 0" to 3' 0"	Interior: I ½" or 2" nom. Exterior: 2"nom	Gaboon for painting. Oak, Walnut and Sapele for polishing	Price range: For painting—37/9 to 85/-; Veneers—59/9 to 122/6 Plywood faced flush doors only. Windows can be inserted	
GLIKSTEN DOORS	Insulation board lattice core with halved joint at all inter- sections		Any width on re-	Any thickness on request	-	Panelled and flush doors manu- factured for interior and exterior use. Will make to 855.45 on request. Specials to architects designs. New catalogue shortly available	
JOHN HERRING & CO. LTD.	Honeycomb, semi-solid, solid, Stramit, skeleton and eggbox	Any height or request	quest	on request	Any type supplied	Prices: 27/6 upwards. All types of doors including lead-lined, meta faced, and to 855.459. Window can be inserted. Specials to architects' designs	
F. HILLS & SONS LTD.	"Kreibord" core, i.e., com- posite wood resin board with regularly spaced longitudinal holes		(1) 2° 0°, 2′ 3°, 2′ 6°, 2′ 9°	(1) 14"	(1) European figured oak Decorative French Walnut WestAfricanMahog- any, also with plastic faces	Exceptional stability and insulation properties are claimed. Hand finished by craftsmen and veneer matched for colour. Guarantee- for three years. For internal us-	
	(2) The " Durador " has semi- solid core, i.e., horizontal rails 1§" with 1§" spacing. Rails in " Kreibord "		" (2) 1' 6", 1' 9", 2' 0" 2' 3", 2' 6", 2' 9" for 6' 6" height and 2' 0' for 6' 0" height		(2) Faced with West African hardwoods and or Gaboon (balanced plywood) to BSS.1455/48. Oak veneers also available	Windows cannot be inserted Supplied for painting and to staining and varnishing. Guaran teed for three years. For interni-	

FLUSH PANEL DOORS (Interior & Exterior)

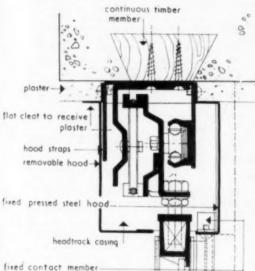
Supplier	Core Details	Stan	dard Measureme	nts	Veneers	Remarks	
Supplier	Core Details	Height	Width	Thickness	Available	Nemarks	
. HILLS & SONS LTD. continued)	(3) The "Clymax" has semi- solid core	(3) Interior: 6' 6" and 6' 0". Exterior 6' 6"	Interior: 1' 6", 1' 9", 2' 0", 2' 3", 2' 6", 2' 9" for 6' 6" height and 2' 0" for 6' 0" height. Exterior: 2' 6" and 2' 9"	(3) 12" for both Interior and Ex- terior	(3) Faced with bal- anced plywoodmade from West African hardwoods to BSS. 1455/48. Weather resistant adhesive used	(3) Moderately priced. Lock blocks are fitted to both edges of exterior doors. Windows or portholes may be inserted. Guaranteed for three years	
AYANBEE JOINERY	(1) The "Multigon "has fibrous honeycomb core which fills upentire space between framework (2) "Paragon" door has vertical slated Stramit core with hardboard face	(1) 6' 6" and 6' 0" (2) 6' 6" and 6' 0"	(1) 2' 9", 2' 6", 2' 3", 2' 0" for 6' 6" height and 2' 0" for 6' 0" height (2) Internal: 2' 9", 2' 6", 2' 3", 2' 0", 1' 10", 1' 9", 1' 6" for 1' 10", 1' 9", 1' 6" for 6' 6" height External: 2' 9" and	(1) 1g" and 1g" (2) Internal:1g" and 1g" External: 1g"	(1) Occume or Mahogany specie (2) Occume or Mahogany specie	(1) Supplied for polishing or painting and for painting only. Claimed to have good temperature insulating qualities and sound absorbent. Carries a guarantee (2) Windows can be inserted	
	(3) Plywood flush door has horizontal slatted core	(3) 6' 6" and 6' 0"	2' 6" (3) As for 2 above	(3) Asfor 2 above	(3) Occume or Mahogany specie	(3) Windows can be inserted. Note: Fire-check doors supplied	
JENNINGS (BRISTOL) LTD.	Lattice construction	6' 6" and 6' 8"	2'9", 2'6", 2'3", 2'0"	1½" and 2" nom.	Oak or Mahogany	Prices: Hardboard—32/- to 39/-, Plywood 40/- to 160/ Windows can be inserted. Interior and exterior doors made. Specials to Architects' designs and to BS\$.459	
WILLIAM KAY (BOL- TON) LTD.	Both fattice and solid	6' 4", 6' 6", 6' 8"	2' 0", 2' 3", 2' 4", 2' 5", 2' 8", 2' 9"	Ii's and 2"		Prices: 30/- to 90/-: windows can be inserted. Specials to Architects' design. Mainly stockists of flush doors made by the larger manufacturers. Imported Swedish panelled and glazed exterior doors. Fire resistant and acoustic doors to order.	
WALTER LA WRENCE & SON LTD.	Lattice core made of $\frac{1}{16}$ " insulation board in 4" x 4" sections	6'0", 6'6", 6'8" Non-standard heights on re- quest	2' 0", 2' 3", 2' 6" Non standard widths on request	l ½", l ¾", 2" nom.	Mahogany, Oak and Teak. Other vensers on request if avail- able	Price: From 27/6 (hardboard) to 180/- (teak veneered olywood). Internal and external made; windows can be inserted. Specials to Architects' design. Made to BSS.459. Metal faced flush doors also made. Fire resistant and acoustic doors to order.	
LEADERFLUSH LTD.	Square cell construction type "H.D." Solid core type "B." Semi-solid type "A," Vertically slatted type "F" A,"	6' 6"	2' 9", 2' 6", 2' 3", 2' 0"	I g and I g nom.	Oak, Mahogany and various selected ex- osic veneers	Prices 25/- upwards. Internal and external doors made. Windows can be inserted. Will make to BSS.459. Specials to Architects' designs. Acoustic and fire resistant doors to order.	
LINDEN DOORS LTD.	Solid core: ½" x 2" "Stramit" interfilling. Semi-solid core: ½" x 2" "Stramit" vertical ribs	6' 6"	1' 6", 1' 9", 2' 0", 2' 3", 2' 6" and 2' 9"	14" nom.—in- terior 2" nom.—exter- ior	Japanese Lanan on internal and West African Lagos Pine on external doors	Specials to Architects' designs. Will make to BSS.459. 'Windows can be inserted. Available to Trade only through established Timber and Builders' Merchants. Fire check doors made.	
MAGNET JOINERY		All standard heights. Non- standard on re- quest	All standard widths. Non-standard on re- quest	All Standard thicknesses. Non-standard on request	Veneers available to order	Both interior and exterior doors made. Will make to BSS.459. Specials to Architects' designs. Windows can be inserted. Fire check doors made.	
MANOR JOINERY WORKS LTD.	(1) Square cells, 3\(\frac{1}{8}\)^* x 3\(\frac{1}{8}\)^* formed with \(\frac{1}{8}\)^* climber members halved together. (2) Semi-solid kiln-dried softwood core with ex 3\(\frac{1}{8}\)^* wide stiles, top and bottom and intermediate rails, ex 2\(\frac{1}{8}\)^* wide munities spaced 1\(\frac{1}{8}\)^* apart. (3) Solid kiln-dried softwood core.	All standard heights. Non- standard on re- quest	All standard widths, Non-standard on re- quest	All standard thicknesses Non-standard or request	Mahogany, Oak, Walnut Obechi, Sapeli, Teak, Syca- more, Agba, Beech, Birch, Swedish Pine, Columbian Pine, Lanan	6' 6" with oak veneered plywood faces). Specials to Architects' designs. BSS.459 type made.	
MERCHANT TRAD	Solid, semi-solid and lattice core	stock. Non-	I' 6" to 2" 9" ex stock Non-standard width on request	stock.	other hardwood on	Prices: 30/- upwards. Internal and external doors supplied, window can be inserted. Hardboard an plyfaced for painting. Oak faces stocked in these sizes. Special to Architects' designs. Made also to BSS.459. Fire check door made. Largest demand is fo hardboard faced doors but ply wood faced doors have recent; shown marked increase.	
MORGAN & PART NERS	- Solid or skeleton framed as re- quired	All heights	All widths	All thicknesses	All types of veneer used, bonded with resin glues	Merchant stock standard doors and doors to special requirement Specials to Architecta' design, win make to 855.459. Internal an external supplied. Windows cabe inserted. Prices: 30/- to 600; Speciality: hardwood doors. Fir check and acoustic doors made.	
RIPPERS LTD.	To BSS. or as required	6. 6.	Internal: 2' 0", 2' 3" 2' 6", 2' 9" External: 2' 6", 2' 9	111	order only)	Prices: Internal hardboard 24/- t 34/- (2 edges lipped), Intern Plyfaced 30/- to 50/- (1 edge lipped External Plyfaced 65/- to 110 (2 edges lipped), Windows can b inserted, Supply to Architectu design and 855/- 55/- Fire chec and acoustic doors to order.	

Metal Doors



elevation

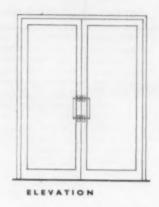


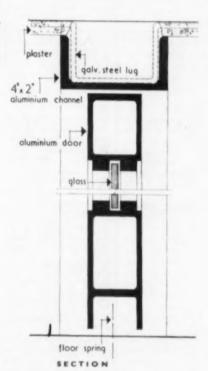


Left: Typical sliding door by Crittall Manufacturing Co. Ltd., of which one method of fixing is shown below. This is the "Flyaside" Panther III, manufactured by E. Hill Aldam & Co. Ltd., in drawn steel. Two rows of superimposed caged ball-bearings prevent any tendency for the door to tilt and ensure smoothness of operation. The gear is supplied in one unit ready for screwing into posi-tion. Full lateral and vertical adjustments are provided. For either side or soffit fixing. To obtain a clear threshold the recommended arrangement is to fix a guide (2in long) to the floor at one corner of the opening and to mortise the steel or bronze channel in the door itself. The guide is always concealed.

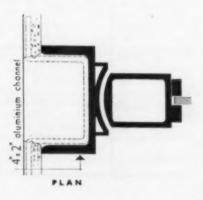
Right: Typical double action aluminium swing doors by Crittall Manufacturing Co. Ltd. Centre shows vertical section through the aluminium channel frame with its galvanized fixing lug. Below is a plan through one side of the door.

Below left illustration: Sliding folding door by Crittall Manufacturing Co. Ltd., in a house at Northwood, Middlesex.









FLUSH PANEL DOORS (Interior and Exterior)

Supplier	Core Details	Stan	idard Measureme	nts	Veneers	Remarks	
	As required	Height	Width	Thickness	Available	Remarks	
RUSH BROS. & CO.		6.6.	1' 6", 2' 0", 2' 3", 2' 6", 2' 9"	18" and 12"	As required	Prices: Mardboard 30/- upwards Plywood 40/- upwards. Internal and external doors made and windows can be inserted. Supply to Architects' designs and 855,459. Fire check and acoustic doors to order.	
OHN SADD & SONS	(1) Type FD5—Solid Core:—a continuous series of laminations (21 Type FD10—semi-solid core. A laminated frame with vertical members tenoned and glued into rails (3) Type FD15—Skeleton core with numerous vertical members housed into rails (2 intermediate rails). Rails are dove-tailed into styles. Cores can be made af hardwood or softwood (4) Type FD20—Skeleton core with horizontal cross-members (5) Type B3.459. Simple ribbed core	6' 6" for all types. Non- standard heights on request	2' 2", 2' 3", 2' 6", 2' 9" for all types. Non-standard widths on request	Type FDS—1ª Type FD10—1ª Type FD15—1ª Type FD20—1ª Type FD20—1ª Type BS.459—	Plywood facings, specially veneered with Walnut, Oak, Mahogany, etc., to order.	Prices: Skeleton framed types from 216, semi-solid 3/9 and solid 5/- ft. sup. Approx. cost of special veneer 1/9 ft sup. per face. Hardboard faced doors from 2/- ft sup. External and internal doors made—external 1/2 min. thickness. Windows can be inserted. Will supply to Architects' own drawings. Will make to order with insulating infilling of fibre glass or other suitable material. Skeleton core types are suitable for domestic buildings, solid and semi-solid types for schools and public buildings. Examples of these flush doors are on exhibition at the Building Centre, 26, Store 5c., London, where they are partly stripped to show method of construction. Fire resistant and acoustic doors to order.	
JOSEPH SANDELL & CO. LTD.	(1) The "Multigon" has fibrous honeycomb core which fills up the entire space between the framework (2) Horizontal timber slatted (3) Timber egg-box	6'0", 6'4", 6'6", 6'8"	2' 0", 2' 3", 2' 4", 2' 6", 2' 8", 2' 9"	la fin., la fin.	(i) Okumie (similar to Gaboon, Limba or Tolabranca (2) and (3) Beech, Lauan, Gaboon, Swedish Pine, Oak, Walnut	Prices: 30/- to 100' Supply internal and external; to Architects' designs; also to BSs.459 if requested. Windows may be inserted. "Multigon" supplied in two different finishes: "A " for polishing." "B." for painting. Claimed to have good insulating qualities and to be sound absorbent and that construction guards against warp. Fire check doors made.	
SARO LAMINATED WOOD PRODUCTS	(i) "Oras"—Skeleton frame, kiln-dried hardwood strips congued and glued on stile edges — bonded throughout with synthetic resin. (2) "Saro." Kerfed block board core	5' 0" to 7' 0"	2' 0" to 3' 0"	š" to Iš"	All decorative veneers available	Prices: "Oras" 60/- to 100/- "Saro" 90/- co 200/ Internal and external doors made, windows can like inserted. Supply to Architects' designs. Fire check doors made.	
SCOTTISH SPEED- WELL CO. LTD.	Softwood core, square cell construction	6' 6"	2' 3", 2' 6", 2' 9"	1§" to 1§"	Lauan Plywood, Sapele Mahogany, Hardboard doors also supplied	Internal and external doors made, windows can be inserted. Supply to Architects' designs and BSS.459.	
SOUTHERNS LTD.	(1) "Marvelite" "MG" 14" x 2" horizontal rails (2) "Marvelite" "S.D." 14 hardwood strips ½" x 1½" in pairs at 3" centres grooved into top and bottom rails, strips blocked to make 3 intermediate rails (3) "Sacco"—Uprights ½" x ½" spaced 2½" spart (4) "Sasco" "144" Cells 3½" x 3½" formed with ½" cimber members halved together—146 cells—Lock block fixed centrally (3) "Royal" — semi-solid kindried softwood (6) "Royal"—solid kind-ried softwood		2' 0", 2' 3", 2' 6", 2' 9" Non-standard widths on request	iğ", iğ" and iğ" finished	Most types available	Internal and external doors made, windows can be inserted. Supply to BSS.459 and to Architects' designs. Fire check and acoustic doors supplied.	
THAMES PLY-WOOD MANUFACTURERS	Skeleton core—light hardwood strips 3½ mm, thick with inter- mediate rails		Non-standard	Internal: 1½" and 2" nom. External: 2" nom.	Standard—Homba. Sapele (Mahogany) and Oak for internal doors	Rectangular glazing openings and	
VENESTA LTD.	Generally solid core	Any height on request	Any width on request	Any thickness on request	All normal decora- tive or commercial veneers, also alumi- nium. Galvanized steel and other metals	Will make internal or external doors, windows can be inserted Supply to Architects' designs Doors incorporating sheet lead architects.	
WATT TORRANCE	Generally lattice or honeycomb but other patterns as required		Any width on request	Any thickness on request	Any type supplied	Internal and external doors Windows can be inserted. Will make to BSS.459. Manufactur mostly to customers' and Archi tects' requirements. Acoustic and fire resistant doors made	
WEST SURREY IN DUSTRIES (BYFLEET LTD.	Solid laminated and slatted cores	6' 6", but non- standard height up to 8' 0" on request	s non-standard		Gaboon, Birch Beech, Ash, Oak, Teak, Walnuc, Mahogany, etc.	Internal and external doors Windows can be inserted. Supply to Architects' designs and BSS.495 Soundproof doors supplied. It addition to normal production supply slatted core interior pl doors, in standard sizes lipped on edge and fitted with 3" x 4" B.5.2 2-leaver upright mortics "Union" locks complete. Soundproof an fire resistant doors made.	

REVIEW OF THE McMORRAN COMMITTEE'S REPORT ON ARCHITECTURAL EDUCATION: 1

Thas become customary within recent years for reports to become known by the surname of the chairman of the committee which produced the report and one can understand the practice when one has read the full title of the committee, presided over by Mr. D. H. McMorran, F.R.I.B.A.—"Architectural Education Joint Committee on the Training and Qualification for Associate Membership of the Royal Institute of British Architects."

The committee was appointed in 1952. Its terms of reference were:—

1. "To investigate the various means of attaining the qualifications for Associate Membership, and to prepare an advisory memorandum to give guidance on (a) the various methods of training, (b) the minimum standard of knowledge and attainment considered necessary, and (c) the means by which such minimum attainment can be achieved by the various methods of training.

2. To consider under what conditions courses based on part-time office and school courses attendance can be accorded recognition for exemption from the R.I.B.A. Final Examination."

In June, 1953, the committee submitted a brief interim report, which was limited to the following recommendation:—

"That the principle that all candidates for the Associateship, R.I.B.A., should be required to pass examinations in uniform lists of subjects be reaffirmed."

The Council of the R.I.B.A. at their meeting in November, 1953, approved this recommendation and the principle was accordingly reaffirmed.

The words "in uniform lists of subiects" have no doubt been inserted after due consideration of the complex structure of architectural practice under present-day conditions. The problem which presumably faced the committee was: Should intending architects have an all-round education in architecture or, alternatively, pass an intermediate examination giving them a general appreciation of architecture and then be allowed to specialize in one particular aspect of the profession? This latter principle has been adopted by certain other professional institutes and has much to recommend it.

It would have been interesting to read the committee's discussions on this point, if it was considered.

The committee, after receiving the Council's approval to their interim report, considered the whole problem of the educational system and examinations, and their recommendations are set out in their Final Report which

came before the Council of the R.I.B.A. on January 5 of this year.

The whole subject of architectural education and the recommendations which have been made are so fundamental to the well-being of the future of architecture and to those entering the profession that the Council of the R.I.B.A. has agreed that the report should be published for the information of the general body of Members.

Whilst it is not stated whether the Council hope that Members, having studied the report, will thereafter put forward comments and suggestions on any particular point, a conference on architectural education is to be convened towards the end of this year. Presumably the McMorran Report will be the basis upon which speakers and the discussion will concentrate.

Whilst one would hope that the private practitioner will be represented, the conference will no doubt be attended in the main by educationalists. As many of the points raised in this report will affect the private practitioner, it was felt that the committee's recommendations should become as widely known as possible and be debated before the conference. It is with this end in view that these articles are published.

" Probationership"

To gain entry to the examinations leading to the A.R.I.B.A., candidates must at present produce satisfactory evidence of their general education and ability in drawing, before being admitted as Probationers, R.I.B.A.

In their summary of recommendations the committee recommended that in this connection drawings and sketches should no longer be required to be submitted with applications for Probationership, R.I.B.A. The Council have approved this recommendation.

The reasons which led to this recommendation are set out in the paragraph dealing with draughtsmanship. "Skill in drawing is necessary to the architect, but a natural gift is not essential, and the necessary degree of facility can soon be acquired," the committee state. "It would help to attract suitable entrants to the profession if attention were to be diverted from draughtsmanship to general education, by waiving the submission of drawings and sketches. This does not mean that an interest in drawing may not be regarded as evidence of aptitude for architecture, but that those who may not have been encouraged to draw while at school would no longer be deterred from entering a profession for which imagination, intellect and character are the best qualifications."

One could perhaps have understood the reason for this recommendation, say, twenty years ago, when boys who were good at drawing but often little else were recommended to become architects by fond parents. Is this the case to-day, bearing in mind that boys entering the profession should have obtained the General Certificate of Education in certain specified subjects? One can only assume that architects are still accepting boys as pupils who have not obtained this certificate. If this is so, it is neither right on the boys nor on the profession.

I am informed by students who have recently passed through Schools of Architecture that unless one has a natural flair for drawing one stands little chance of success. Unfortunately, the slick draughtsman can still convince the teacher that his design has more to commend it than perhaps it really has.

"Selection of Entrants."

It is with some surprise that I read the following words in the paragraph dealing with the above.

"There does not seem to be any way of devising satisfactory aptitude tests for architects and the acceptance or refusal of students or pupils must be left to teachers or architectemployers."

One is tempted to ask, aptitude test for what? A good business man, a good designer or what? If the boy has been successful in obtaining his General Certificate of Education he has an all-round education, which should stand him in good stead as an architect.

Now that "drawings and sketches should no longer be required to be submitted with applications for Probationership," what other aptitude test could be set?

Under the heading "Private Study—the Independent Student," it is agreed that the R.I.B.A. must continue to hold its external examinations. It is suggested that, in the interest of such candidates, these examinations should be designed to guide their studies as far as possible on the lines adopted in recognized Schools. This recommendation, I am pleased to note, has been approved.

On the question of the present methods of training, the report deals with recognized day schools, final and intermediate, and unrecognized day schools, but does not appear to make any recommendations regarding these methods of training.

The question of practical experience

during school courses is dealt with at some length and it is to be hoped that the points raised will be given careful consideration by the heads of recognized Schools. The report states:—

"Students must be given a sense of the professional responsibilities which they will be required to assume as architects, and they should therefore be brought into practical contact with architects' offices and building operations during their school training. Occasional visits to buildings in progress are of limited value, but systematic inspections, based on a study of the relevant working drawings, may usefully be undertaken with the help of local architects. A knowledge of materials, tools and processes can be given through lectures and demonstrations conducted jointly with a School of Building, and the use of a workshop and/or building laboratory, properly equipped and staffed, is a valuable asset to an architectural school. Actual participation by students during term time in the design and supervision of building works for which members of the teaching staff are the responsible architects may sometimes be possible, and although it may raise educational and profes-sional difficulties, it affords one method of giving the degree of prac-tical experience required"

Dealing with the point of practical experience outside the school courses, the committee feel that one year's practical experience is too short a period and that two years of practical experience appears to be the minimum.

A recommendation has been approved which reads as follows:—

"That the minimum period of practical experience to be gained by candidates for Associateship R.I.B.A. should be two years, of which at least one year should be subsequent to the Final (or equivalent "recognized") Examination (except the Examination in Professional Practice and Practical Experience), and that an announcement to this effect should be made as soon as possible in order to give six years' notice."

Any architects who have been asked to be members of a Visiting Board will, I feel sure, agree with the recommendation that the duties of the Visiting Beard should be more clearly defined.

The report states: -

"Members of the Board should have clearly before them the Minimum standards of knowledge and attainment required for Studentship and Associateship, as defined by the programmes, syllabuses and question papers issued by the Royal Institute. They should ensure that comparable minimum standards are maintained through recognized school courses and examinations; and they should have regard to the numbers of students; the accommodation; the numbers, qualifications and professional experience of the teaching staff; and

the arrangements for co-operation with architects working in the neighbourhood. It is desirable that the Visiting Board (and not only the Officers as at present) should be responsible for inspecting the exhibition of studio work from recognized schools which is held annually by the Royal Institute."

M. E. TAYLOR, A.R.I.B.A.

POINTS FROM PAPERS

ARCHITECTURE AS A SCIENCE & ARCHITECTURE AS AN ART Extracts from a paper read at the R.I.B.A. on March 1 by Dr. J. BRONOWSKI

THE task of the architect is to design a shelter, as the task of the lock-smith is to fasten it; and both are contained by the materials which they can use. Yet architecture has evolved for this circumscribed task a bold and rich imagination, refreshed in each change of society, of which no other craft has a hint. The buildings of the great designers arch out of their materials as spontaneously as a fountain.

Think back through the revolutions in architecture. Gothic in France in the twelfth century begins at once with the rib-vault and the buttress, and for three hundred years is a constant play in the freedom (and the limitations) which these engineering devices give. They are means which, as it were, open space vertically; when that no longer yielded anything new, the Renaissance suddenly abandoned it and opened the space horizontally. The building in which Brunelleschi made this pioneer change in 1419, the Foundling Hospital in Florence, is to me still the most beautiful in the world.

A horizontal building (if I may speak of architecture in my own way) is not held to a single line of sight, and must therefore guide our attention by its organization of detail. For me, this articulation of parts, this search for organic structure, runs through the Renaissance. It floods into Baroque and exhausts itself there, because it had reached the limits of what seventeenth-century materials could sustain—what would Balthasar Neumann have given for steel joints and prestressed concrete.

The next revolution begins at a new problem: domestic needs in the climate of Paris and further north. It comes to life, I think, in the work of Christopher Wren at Oxford and Cambridge, and of his colleague Robert

Cambridge, and of his colleague Robert Hooke in the rebuilding of London after the fire. What is best in the eighteenth century stems from their

invention; and moreover, Wren's bold, almost impertinent conceptions (the place of the lantern on the Sheldonian, for instance) have a kinship with those casual peremptory innovations of iron and glass which stand alone in the architecture of the nineteenth century.

I want to stop at Christopher Wren and Robert Hooke, however, because they give flesh, symbolically, to an issue which is central to architecture now, and indeed to our culture. Neither was trained as an architect. This of course was not new; none of the pioneers of the Renaissance was an architect either. Brunelleschi was a goldsmith, Bramante was a painter, and even later Bernini was a sculptor and Inigo Jones a designer for the stage. They were, however, professional artists; but Wren and Hooke were not even that. Both were by profession scientists, and were at the centre of scientific life. It was at the end of a lecture on astronomy by Wren, on November 28, 1660, that the Royal Society was founded, and Hooke became responsible for the experiments at its meetings soon after. Twentyfour years later, amid their building plans, Wren was still arguing with Hooke about science, and the outcome of one dispute was that they sent Halley off to Cambridge to ask Newton a critical question in gravitation. Newton had worked out the answer years before, but when Halley arrived he could not put his hand on it. He began to write it out afresh, and ended by writing the Principia.

I quote these incidents in order to make clear that Wren and Hooke were not minor figures; in the age of greatest scientific speculation before our own, their minds marched with the leaders. Hooke's neglected reputation in science is now reviving, but he remains unlucky in his architectural work because hardly any of it has survived; or if it has, like the Monument (which he built) it does not go by his name. These two springing minds rebuilt London; was their architecture original because they were scientists, or in spite

This is the type of question which now troubles all serious artists. easy answer, of course, is to give science a sort of kitchenmaid's place in architecture: to let her supply the materials and techniques, and to begin the creative work only when the skeleton has been fixed by some handbook engineer armed with the codes of practice. Gilbert Scott put this view baldly when he said that "architecture is decoration of construction"; and his own work is a noisy witness to the consequences of this definition of architecture as schizophrenia. But the view (and its disasters) has not died with Gilbert Scott.

On this mistaken view, science is thought to fix what I called the limits or constraints within which art works; and art is the defiant gesture of freedom, pinning plaster rosettes to the building in spite of the engineer. Science is thought at work from year to year, calculating the right stresses

and dimensions for a building more closely, until one day it will have narrowed the tolerances to nothing at all. The building will be determined by calculation; nothing any longer will be open to choice, and therefore freedom and with it art will be at an end.

No one can hold this foolish view while he is standing in front of a building by Wren or his associates. On the contrary, in them the new knowledge of mechanics was plainly a liberation of imagination, and not a restriction. In what way, then, is this plausible interpretation of my æsthetic at fault?

Its grave fault is that it pictures art and science, not merely as different skills, but as different tempers, which must inhabit different men. From the moment that you, the architect, consent to take the structural engineering from someone else, the building is doomed. There are no composite works of art, not even in the cavepaintings or the ballads; you can no more make a building in which someone else (a man or a textbook) puts the joists than you can write a poem and have someone else put in the rhymes. knowledge which another man supplies is always a constraint; but every addition to your own knowledge is a liberation.

Every building is an invention, no less and no more. It begins with a problem, which has nothing to do with the look, the construction or the layout of the building, but asks something more searching: how should the activity which the building is to house be carried out? If the architect is not asked to help think this out, he will build what Britain is now full of: office blocks which are (I know no exception) meaningless rows of holes linked by tunnels; power stations and town halls which are indistinguishable; and vistas of semi-detached houses which (though they may be poured in concrete or assembled from panels) differ from their Victorian models only because it is now too dear to dig out a basement. Ride the lifts in Broadcasting House, go to bed in any hospital, drop in to a prefabricated post-war villa for tea, and ask yourself whether the architect was consulted on how the work there can be made to flow.

He was not; but then has he earned the right to be consulted? This country is already building the world's first atomic power stations, and the designs which have been published show that they put many exciting problems. Alas, the designs also show that once again they have been solved in the conventions of Battersea and Western Avenue. But what architect to-day knows enough science to be able to think himself into the new processes, and invent an organic plan? Wren and Hooke would not have muffed this chance.

Or take a simpler contemporary issue: the housing estate. The main problem in house building in this country is the mass production of subunits. What architect has studied this at first hand where it has been solved,

in the component and sub-assembly factories of the Detroit automobile industry? What young architect has fitted himself by research to tackle the central heating of the small house, or that other weak unit, the water and waste system?

The health, yes, the beauty, of architecture hangs on seeing your vocation in this way. Architecture is not decoration, and it is not a jigsaw of technical tricks. A building is not a beautiful shell, and neither is it a functional shed. A building is the coherent solution of a problem in living. In that profound sense, a building is an invention, and all architecture is invention. Some of the most original architecture to-day is surely in Italian dams, in Swiss bridges, and in oddities like the Dome of Discovery. and Hooke would have delighted in these problems; and, like them, the architect must fit himself for solving all parts of the work in his own person. His invention is only free when it rises out of his own scientific as strongly as out of his artistic imagination.

What I have been putting to you is the central issue of our age. We all hanker for beauty expressed as freedom of choice, because freedom (this is the crux of my æsthetic) is an emotional need as real as the physical need for rest, comfort and gadgets. We all fear and feel the constriction of a uniform society and a threatening world. This tension is as old as man, and gives his thought its spring, its creative invention, in art and science together.

But now our generation has begun to make a dangerous distinction; it has separated these two modes of original thought, and identified art with freedom and science with its inevitable limitations. This identification is false, as I have shown in architecture. It is unhealthy for the artist, because it makes him narrow and the public taste narrow—but, alas, a century apart. It is bad for the scientist, whom it makes dictatorial, irresponsible and philistine. And it is a disaster for mankind.

For a society is as balanced as a building is. We must not fall into the trap of parcelling out either between two minds; between the architect and the engineer, or between the statesman and the scientist. The statesman cannot create a policy if he simply accepts the sanctions from the nuclear physicist. Statesmanship without scientific vision, even citizenship without it, is (like bad architecture) a mere decoration of acquiescence.

The danger is that we take our positive policy from the past, and use modern science only negatively to protect that. This would indeed debase science into an obstacle and not an instrument of personal freedom. And this abuse faces us with physical destruction and, what is as threatening, with a moral revulsion against science throughout the West. Our populations have begun to fear science instead of to learn it; if this goes on, we are doomed. For societies are not bound

to go forward, from freedom to greater freedom. Greece fell, and Rome, and the world was a darker place for at least a thousand years. God has not insured civilization against the fear of his gift of reason.

We can heal these divisions only in creative work: taking pleasure in our freedom and exploring it to its limits. In our age we have not begun to reach these limits, and certainly they are not set by science. On the contrary, the constraints which we accept are still the conventions of the past, dead styles and ancient policies. Everything new that we learn, in science as in art, gives us confidence and freedom to break through these constraints. But we have to learn it for ourselves, in our own person and experience. You cannot sustain a civilization vicariously by calling in Lord Cherwell on difficult days and Graham Sutherland on birth-

In the intellectual revolutions of the past, architecture has been a point of fusion: the most sensitive point at which new ideas in science and a new conception of the arts have crossed and influenced one another. Men have learned both, unconsciously, from the daily sight of great buildings. To-day the architect bears the same responsibility for making science as well as art visible and familiar, and for having each influence and enter into the other Architecture remains the cross-roads of new science and new art. If the architect is willing to make them one, by learning to live naturally in both, there will at last be fine modern buildings, and citizens wise enough to see that they survive.

Ancient Monuments Board: Appointment of Chairman

.The Minister of Works, the Rt. Hon. Nigel Birch, O.B.E., M.P., has appointed Sir Eric de Normann, K.B.E., C.B., F.S.A., to be Chairman ot the Ancient Monuments Board for England in succession to the Right Hon. Lord Harlech, K.G., G.C.M.G., who has felt compelled to relinquish the post because of the many other demands on his time.

Sir Eric de Normann was formerly Deputy Secretary at the Ministry of Works. He retired from this post in Ianuary. 1954.

January, 1954.

Lord Harlech, as the Right Hon.

W. Ormsby Gore, M.P., was First
Commissioner of Works from 1931 to
1936. He has served as Chairman of
the Ancient Monuments Board for
England since 1946.

CORRECTION

The address given at the end of the "Salaried Architects and the British Architectural Guild" article in last week's issue should be 59, New Cavendish Street, London, W.1, and not 40, New Cavendish Street, W.1.

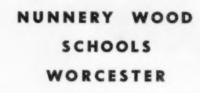
CURRENT MARKET PRICES (LONDON)

(These prices apply to material purchased in the quantities named or otherwise as might be expected for a new building of moderate size.)

February, 1955

AGGREGATES AND SAND 1½ inch—all in—ballast	BRICKLAYERS' SUNDRIES— AIR BRICKS 9 × 3in 9 × 6in 9 × 9in 12 × 9in Iron each 1/11 3/1 4/8 6/2 Galvanized do. do. 3/3 5/5 8/1 10/10
inch do. do 23/- loads or	Terra Cotta do. 1/3 2/6 6/- 10/2
† inch granite chippings 45 – more) Sharp washed sand 23 –	Chimney pots, Terra 1ft 2ft 3ft 4ft Cotta (11 to 25) do. 6/8 11/8 26/6 45/8
Pit sand	Cotta (11 to 25) do. 6/8 11/8 26/6 45/8
Building sand 22/3	PARTITIONS—
Broken brick 18 6	18in. × 9in Blocks keyed for plastering.
11 inch shingle 22 -	Per yard super in 6 ton lots 2in 2½in 3in
Cartage of muck 8-	In solid clinker including any half blocks 3/7 4/2 5/-
	In cellular clinker blocks 4/3 4/11 5/9
BUILDING MATERIALS AS DESCRIBED, CENTRAL LONDON	In cellular clinker blocks 4/3 4/11 5/9 In hollow clay blocks
CEMENTS packed in paper bags Per ton Portland in 6 ton lots	Intermediate quantities in all types may be had at intermediate prices. Smooth in lieu of keyed faces extra cost per side 3d. per yd. super.
Do., Rapid hardening (6 ton lots)	SINKS
Cement "Aquacrete" (do.) 138/- Do., "417" or "Polar" (do.) 138/- Do., "White" 1 ton (lots) 257/-	Fireclay white glazed in and out—standard quality. $24 \times 18 \text{in} 30 \times 18 \text{in} 30 \times 20 \text{in}$ London pattern, no overflow,
	6in. deep 62 - 77 - 81 -
LIME—	Belfast, plain edge, 10in deep 71 - 122 - 163 -
and paper 114.6 (4/5 do.) do. Ground bags 112/6 (6 do.) do.	FLUE LININGS PLAIN, CIRCULAR Foot lineal Each
PLASTER—	Straight Bends
Keenes, coarse, pink (2 ton lots) 188/6 ton	9in diameter 3/8 11/- 10in do 4/7 13/9
Do do white (do) 194 - do	
Sirapite, do. (2 ton to 3 ton 19 cwt lots) 139/6 do.	9in diameter, beaded end, 12in high 4/10
Do. finish (do.)	Zan samuella, control carry rame inglis
Hardwall, do. (do.) 148/9 do. Plaster, coarse, pink (do.) 137/3 do.	FLUE PIPES AND FITTINGS
Plaster, coarse, pink (do.) 137/3 do. Do. do. white (do.) 145/9 do.	4in 5in 6in
lin. Plaster baseboard (25 to 149 yards) 2/10 Yard Sup.	Heavy asbestos type, 6ft length 15/3 21/- 26/6
Do (150 to 200 tide)	Do. 3ft length 7/8 10/6 13/3
3§in. Jute scrim (100 yd. roll) 9/- each	Do. 3ft length 7/8 10/6 13/3 Do. bends 5/9 7/3 8/8
Cow hair (under 3 cwt) 97/6 cwt	Light asbestos type, oft length 12/6 15/9 21/-
	Do. 3ft length 6/3 7/11 10/6 Bends 4/7 5/9 6/11
FIRECLAY— Stourbridge, loose (1 ton lots)	Baffler
	DRAINAGE GOODS
BRICKS '	GLAZED STONEWARE STANDARD LIST
BACKING BRICKS (in truck loads)—	
	ORDINARY TYPE—EACH 4in 6in 9in
Do. Keyed 115/- do.	Pipes in 2 feet lengths 1/8 2/6 4/6
Do. bullnose 133 - do.	Bends
Blue wirecuts	Junctions (4in on 4in, 6in on 6in, 9in
White 192 – do. Southwater engineering (No. 1) 370 – do.	on 9in) 4/2 6/3 13/6 Gullies with 4in outlets 6/3 6/10½ 11/3
Firebricks—21 inch 69/3 per 100 delivered	4in horizontal inlets 6/3 6/10½ 11/3
Do. —3 inch 87/3 do.	4in vertical ditto3 – 4 – 7 –
STOCK BRICKS—	Black iron grids 9d 1/5 2/9
Mild stocks 176/6 per 1,000 at Works	
	Adjustment to Current Cost
Second, do	2 ton lots Less than 2 ton lots or more
FACINGS (ex truck or lorry)—	100 pieces Under
Rustics 138/- per 1,000 delivered	"Best" pipes and fit- tings. Percentages to
White 200/- do. Blue pressed, 21in 509/6 do.	add 67½ 97½ 107½
Do. bulinose 527/6 do.	Further percentages to be independently added in respect of: British Standard pipes, etc., 10. "Best" Tested pipes, 371
Reds (Multi sand faced) 290/- do.	British Standard Tested, 47½.
White giazed stretchers 1280 - do.	
Do. headers 1260/- do.	IRON DRAINAGE GOODS—
Do. bullnose 1600/- do. Do. double stretchers 1700/- do.	
Do. double stretchers 1700/- do. Do. double headers 1500/- do.	Each 4in 6in Cast iron pipes, 9 feet long 64/9 96/-
Breeze fixing bricks 28/6 per 100	Do. 6 feet do
	Do. 4 feet do

Wall ties—8" $\times \frac{1}{4}$ " $\times \frac{1}{16}$ ", black 57/- per cwt	
Fire tiles and lumps 33/- foot cube Wall ties—8" × ½" × ½", black Cement mortar (1:3) hand- made 82/- yard cube	Do. 2 feet do



(As Illustrated in this issue)

Architects:

E. B. MUSMAN & PARTNERS

The construction and structural design of the portal and other frames, long span Truscon Insitu Floors, and Hy-Rib falsework and suspended ceiling-base (as in the Assembly Hall below) were by TRUSSED CONCRETE.

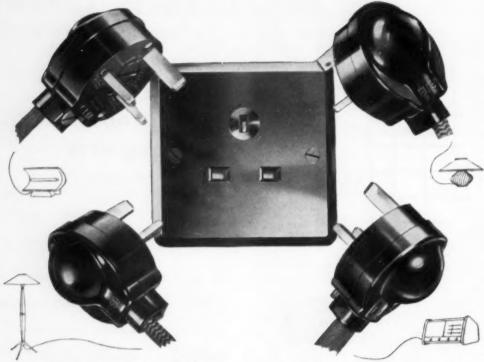




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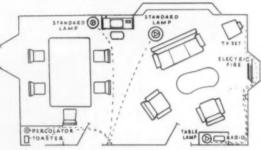


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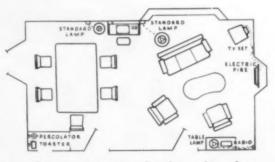
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Insufficient socket outlets wrongly placed. Note the long trailing flexibles running dangerously across doorways and "traffic ways".



Correct arrangement of socket outlets. Long flexibles and inconvenient adaptors are avoided.

CURRENT MARKET PRICES (Continued)

DRAINAGE GOODS—Continued 4in 6in 6in 7 7 7 7 7 7 7 7 7	PRECAST CONCRETE LINTOLS— 1:2:4— $\frac{1}{4}$ in material, finished with fair exposed faces, including all form-work, and one $\frac{1}{4}$ in diameter mild steel rod reinforcement to each $\frac{1}{4}$ in in width. Per foot lineal delivered to site. $\frac{1}{4}$ in \times 6 in $\frac{9$ in \times 6 in $\frac{9}{1}$ in \times 9 in $\frac{13}{4}$ in \times 9 in $\frac{18}{4}$ in \times 9 in $\frac{1}{4}$ in \times 9 in 1
RAINWATER SHOES	STONE PER FOOT CUBE in random blocks not exceeding 20ft average in each. BATH STONE F.O.R. SOUTH LAMBETH— Monks Park 7/10 St. Aldhelm 8/10 Doulting 8/4 STONE F.O.R. NINE ELMS— Portland brown Whitbred 8/14 Beer 8/-
Each 4in 6in 9in Straight, 2 feet long 15 - 21 3 36 3 Taper, ditto. 25 - 25 - 37 6 Bends, main, half section 28 9 41 3 67 5 Ditto, branch, ditto 17 6 25 Ditto, ditto, three quarters, ditto 25 - 38 9 - Junctions, single 23 9 41 3 - Ditto, double 32 6 56 3 -	Over 20ft average cube blocks extra cost. TIMBER Softwood—sawn—random lengths. Per Standard Carcassing quality £105 Joinery quality £120 and up Plain edged unsorted flooring,
BROWN GLAZED CHANNELS— Based on standard list (less than 100 pieces) Half-round main channel (2ft long)	per square
Three-quarter section do. . 10/5 15/7 — MANHOLE COVERS— Black 24 × 18in Light foot traffic . 27 − each Do. Strong do. . 35 − do. Do. Light car traffic . 98 − do. Do. Road traffic . 155 − do.	Black hexagon
SUNDRIES— Manhole steps	Per ft super Per Per ft super Per Pe
Sizes in inches per 1,000 per 100 per doz. 22 × 11 1735 - 240 - 31,6 20 × 10 1532 - 209,6 18 × 10 1119 - 151,6 20 - 16,9 16 × 10 927 - 126 - 16,9 14 × 9 14 × 9 711,6 86 - 11,3 14 × 4½ 316,3 38,3 5 -	DOORS.—STANDARD TYPE SOFTWOOD Each in quantities 12 or more. 1\(\frac{1}{4}\) in finish, 4 horizontal panels moulded both sides 6ft 6in high. 2' 3" wide 41/- 2' 6" do. 42/3 2' 9" do. 44/6
TILES (Broseley and Staffordshire)— 101" × 6" Machine made 297/6 36 — Do., hand made, sand faced 354/6 43 — Hips, valleys and angles 31/— per dozen Plain concrete tiles 177/— 19/6	FLUSH DOORS 1½ in thick, ply faced both sides, lipped edge. All 6ft 6in high. 2' 3" wide 47/6 2' 6" do. 49/6 PANELLED DOORS: 2in (nominal) as last but upper panel prepared for glazing 2' 6" wide 59/2 2' 9" do. 62/- 2in (ditto) all as above but in 3 panels. 2' 6" wide 55/9 2' 9" do. 58/3
Sheeting asbestos corrugated, 6in pitch (23 to 85 super yard lots) super 4½in×16 guage, drive screws (galvanized) 16/3 gross 7½×½ hook boits and nuts (do.) 48/- do. Washers, round, flat galvanized 49 do. Do. do. bituminous 2- do.	PANELLED DOORS: see B.S. 459—Part 1. FLUSH DOORS:— see B.S. 459—Part 2. 2
Do. do. bituminous 2 – do.	IRONMONGERY
ROOFING FELT— Sanded bitumen felt (55lb) 1 7 Yard Super Ditto, but 75lb in weight 1 6 Do. Inodorous felt, best quality 3 Do. Ditto, second quality 2 4 Do. Underlining 1 8 Do. Sheathing 1 8 Do. Galvanized felting nails 1 6 1 1 6	Cast iron Butts, per pair Hinges, spring, single action regulating, japanned, each

Cast iron Butts, per pair Hinges, spring, single	2in 10d.	3in 1/5	4in 2/3	5in 4/3	6in 6/-
action regulating, jap- anned, each		76	99	13/3	17/3
spring only, each	-		14/9		
Do. black only, each	(1000)	8 3	11/3	17 -	20/9

CURRENT MARKET PRICES (Continued)

IRONMONGERY—Continued	DOUBLE SOOT DOORS AND FRAMES-
12in 18in 24in 30in	36in Fitted with brass turnbuckle 9in × 9in 12in × 9in 14in × 12in
ee hinges (japanned), per pair 2/- 3/10	and cast key 17/3 25/- 42/9
Do. but stronger, per pair 3/4 6/1 8/3 —	SLIDING DOORS, GATES AND PARTITIONS—
Hook and Ride hinges, per pair — 13/4 16/3	24/10 Factory sliding doors in two leaves contain-
Cabinet, barrel, straight	10in 12in ing about 100 square feet with mild steel angle frames covered with 24 gauge
or necked	corrugated galvanized sheeting and in- cluding hanging tubular track and gear complete
brass knob 1/3 1/6 2/- — Tower bolts — 1/7 2/3 3/-	3/9 4/6 Factory entrance gates with mild steel frames
	6/3 7/7 clad with 2in mesh chain link complete 11/- do. Steel partitioning, glazed (rough cast) and
bolts if necked — 5½d 6½d 8d OCKS—each	8d 8d stove enamelied 17/- do.
Brass furniture. brass bolt and bushing 11/9 or Bakelite d	lo. 3/1 STEEL ROOF LIGHTS—
Mortice lock, 2 lever, bushed 12/- Brass furniture or Bakelite do	7/- glazed with 1 in cast glass and lead flashed. 16/6 foot super
Cylinder latches, japanned case	
Casement fasteners (malleable) de	o. 1/6 HIGH GRADE DOMESTIC BOILERS
Do. stays (do.) do. Axle pulleys (brass face, iron wheel) do. Do. as last, but with brass wheel, 1\frac{1}{2}in do.	o. 3/10 Coke fed. Performance 20 to 40 gallons raised from 40°F to
Sash line, No. 8 Anchor yellow label per ya	rd 1/- TYPE
METAL GOODS	20 gallons per hour Plain cast iron black 15in wide, 23in high. finish
itish rolled steel joists ex works to basis sections (6in×5in, 8in×5in or 6in, and	Ditto, in cream mottle finish including side
	0 per ton jackets 10 3
Oin or $18in \times 7in$, $14in \times 51in$, $15in \times 5in$,	25 gallons per hour In cast iron as before and 19in wide, 22in high base plate 10 13
14in or 15in or 16in or 18in×6in, 20in ×6½in, 20in×7½in, 10in or 12in or 14in	Ditto in cream mottle with side jackets and base 15 13
or 18in × 8in	per ton 40 gallons per hour In cast iron, etc., as last do. 22in wide, 23in high ditto 16 18
12in × 5in, 22in × 7in 20/- 6in × 4½in, 7in or 8in or 9in × 4in, 10in ×	do. Ditto in cream mottle all as last ditto 22 18
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	do. do.
5in × 2½in, 5in × 3in	do. GAS, WATER AND STEAM TUBES
6in × 3in, 24in × 7½ 40/-	do.
3in × 3in	do. (From Standard List) do. Internal in &
$3in \times 1$ $\frac{1}{2}in$, $4in \times 1$ $\frac{1}{2}in$ $70/-$	do. Diameter- in in in in lin lin lin lin 2in
† mild steel reinforcing rods ex mills £34 0 0 xtras per ton	do. Tubes per ft 4d 4½d 5½d 6¾d 9¼d 1/1 1/4½ 1/1 Bends each 8d 9d 11d 1/2 1/7½ 2/7½ 3/2 5/2
Ain and hin diameter in size 32/-	per ton Elbows, sq. do. 10d 11d 1/1 1/3 1/6 2/2 2/7 4/3
in do. do 32/- in do. do	do. Do., round do. 11d 1/- 1/2 1/5 1/8 2/4 2/10 4/8 do. Tees do. 1/- 1/1 1/3 1/7 1/10 2/6 3/1 5/1
tin do, do,	do. Crosses do. 2/2 2/4 2/9 3/3 4/1 5/6 6/7 10/6
#in do, do, 49/6 #in do, do, 67/- #in do, do, 87/- #in do, do, 124/6	do. Backnuts do. 2d 2d 3d 3½d 5d 6d 8d 1/ do. Sockets do. 3d 3d 4d 5d 6d 8d 10½d 1/
kiras for length	Sockets, do. dimin. do. 4d 5d 6d 7d 9d 1/- 1/4 2/
3ft to 2ft 15/-	do. PERCENTAGES ON OR OFF ABOVE
211	do. In quantity and in random lengths.
40ft to 45ft	do. Class A (light) —18% Black + 2% Galvanize
olts and nuts	Der cwt Class B (medium) — 8\frac{1}{9}\% Do. +18\% Do. Class C (heavy) +3\% Do. +35\% Do.
rebated frames, 9in wide 20/6 fc	oot run FITTINGS
Do., but 12in wide	do. Lightweight +12% Black +26% Galvanize do. Heavy +21% Black +35% Do.
Do., but 18in wide 31/6	do,
METAL SUNDRIES	RAINWATER GOODS (Painted or Unpainted)
cast iron pavement light filled with 4in × 3in glass lenses	ft. super In consignments of 5 cwt. and over.
in wrought iron plate door in four panels with	From Standard List.
stiles and rails on both sides 45-	do. Pipe: 2in 3in 4in 5in 6in 6in 6in 6in 6in 6it engths each 12/10 14/5 18/11 24/8 31/6
24 gauge galvanized Tallboy 6ft high 9in dia- meter with 9in × 12in base 55 -	3ft do do. 7/- 7/9 10/- 13/1 16/6
CHAIN LINK FENCING—	Bend do. 2/7 3/10 5/7 9/5 12/1 Bend
In 25 yards lineal rolls inclusive of line wire.	Branch, single do. 4/6 6/7 9/3 14/7 22/9
	Offset, 4\in do. 3/9 5/3 7/9 12/11 17/-
36 42 48 60	72 Do. 9in do. 4/11 6/6 9/8 15/3 19/
	72 Do. 9in do. 4/11 6/6 9/8 15/3 19/6 - 180/3 H.R. gutter, 6ft length . do. — 6/- 8/5 10/4 13/6

symbol ..

The M W

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THE

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As one clock on one wall, or as a hundred 'Slave' clocks on a hundred walls, synchronized to a 'Master', Gibson clocks are specified at the blueprint stage, for hospitals, schools, factories, or wherever accurate time-recording is a necessity.

THE

Because they are worked off batteries charged from the mains, these clocks are aloof from power cuts. The available designs are varied and good—special designs can be carried out.





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CURRENT MARKET PRICES (Continued)

under those heads— Metal lathing ({** × 24G.}) (20 y Plaster baseboard, {** (600 yar. Lath nails, galvanized White glazed tiles (6* × 6* × {** }) Do. rounded on one edge Do. on two adjoining edges	rde)	re previous	6/3 3793	r.d	Nominal bore	Intern Outsid diamete inch 0-596 0-846 1-112 1-362 1-612	e Ga	k (semi	-hard). Weight lb per f 0-27 0-39 0-62 0-76 0-91 1-40	t Price	per ft
PLUMBER	t's Gool	DS			CAPILLAR			7			71.93
Lead water pipe in coils (do.) .		142/3	3 per	cwt io.	All ends	copper		per.			
Plumber's solder		3/0	6 11	b lo.	Each Straight				n %in 8 2/4	3/8 4	in 1 in 2in 10 6/6 9/4
IRON SOIL AND WASTE PI	PE. (5cw)			40.		* *		. 4	4 5 4		6 16/6 23/2
each fein Medium pipe, 6ft length	2in	3in 3	9/3 2		Brackets (1 2/3	2/6 -	
Ditto, 4ft length	10/5	5 12/2 1	3/7 1					GLAS	22		
Bends Ditto, with oval door	17/4	18/6 2	1/1 2	24/7				CFR27 BO			ot superficial
Junction, single	0/0	90 1	1/3 1	13/3 26/3	English, flat	drawn	sheet g	lass cu	t to siz		26oz. 32oz
Swan necks, 4lin	6/6	5 10/3 1	1/9	13/9	in squares					. 71d.	10d. 1/1
Ditto, 9in. Holderbat, 21in projection	8/8	11/9 1	3/9 1 5/4	16/1 5/6	Figured rolle sizes, in so	ed and d	in)	il, whit	e, cut t	o od Po	er foot super
					Ditto, but in	standar	d tints.			. 1/45	Do.
GALVANIZED CISTERNS, (Less than four)	IANKS	AND CIL	INDI	ERS-	lin Rolled, o	ough ca	st ditto	luares .		. 9d.	Do. Do.
each		gallons			in Ditto wi	red ditte)			1/2	Do.
CISTERNS— - Bends over tops and corner	No	minal capac	city		Georgian wi Fluted (No.	red ditto)			1/21	Do. Do.
plates. Riveted or welded-					Reeded (nar	row, br	oad, cr	oss and	d major	r) 1/12	270.
14 gauge		50 200 23/- 270/		00 87/-	ditto		d beand	N Allena			Do.
12 ditto	190 - 2	41/- 298		16/-	Reedlyte (na Spotlyte ditt						Do. Do.
in plate	225/- 2	83/- 335/		76/6	lin Calorex	Cast dit	to			. 1/24	Do.
HOT WATER TANKS— Riveted and with handhol		25 30	4	40	Calorex She Ditto	et (1502	(.)	* *		. 6/6	Do. Do.
and ring.					Flashed Opa	1 (15/18	oz.)			. 3/7	Do.
12 gauge	113/- 1:	25/6 137/ 37/- 149/		64 -	Pot Opal	(15/18	oz.)	1.4		. 3/7	Do.
HOT WATER CYLINDERS— Riveted, with handhole and ri 12 gauge in plate	- 20 ng. 144/- 1	25 33 61/- 175/	- 18	39 87/- 08/-	POLISHED Ordinar Per superfici	ry substa	ance ap	proxim General	ately li Q I S	in thick. Jualities Selected	
PLUMBER'S BRASSWORK,	etc.				In plates no	t exceed		Glazing		Glazing	Silvering
,		Each			2ft super	in each		3/7		4/3	5/1
_	lin	1 in	lin	1½in	5ft ditto 45ft dit	to (un	less.	4/5		5/2	6/2
Boiler screws, single nut	1/5	1/10	3/1	4/6	extra si	zes)	**	5/1		5/9 6/9	6/11
Ditto double nut	2/-	2/7 1/6	4/3	6/3 2/3	100ft ditte	o (ditto)	atae av	5/6	1006	6/9	8/10 96in high o
Cap and lining	2/3	3/-	4-	7/-	160in wide	at higher	r prices		TOOL	super or	your mgn o
		21/- 23/6	_	_		DE	CORA	TING	MATI	ERIAL	
Ditto, fly nut and union										Price	Unit
Ditto, fly nut and union Bib valves, crutch top		13/9	_	income.	A1	Deler				1979 16	Gallon
Ditto, fly nut and union Bib valves, crutch top screwed iron Ditto, but screwed boss	9/9 10/9	15/3	_		Aluminium Distemper,					. 37/6	
Ditto, fly nut and union Bib valves, crutch top screwed iron Ditto, but screwed boss Stop valves, screwed iron	9/9 10/9		_	1000 1000 1000	Distemper, Distemper,	ceiling .	e :	: :		. 37/6 . 35/~ . 120/~	Cwt do.
Ditto, fly nut and union	9/9 10/9 8/3 9/3	15/3 11/9 13/3	23/6		Distemper, Distemper, Enamel	washable	e :			. 37/6 . 35/- . 120/- . 60/-	Cwt do. Gallon
Ditto, fly nut and union Bib valves, crutch top screwed iron	9/9 10/9 8/3 9/3	15/3 11/9 13/3	23/6 26/-	=	Distemper, Distemper,	ceiling . washable lic Paint	ė .			. 37/6 . 35/- . 120/- . 60/- . 86/6	Cwt do. Gallon
Ditto, fly nut and union	9/9 10/9 8/3 9/3	15/3 11/9 13/3	26/-		Distemper, Distemper, Enamel Gold Metall Heat Resisti Japan, black	ceiling washable lic Paint ing Paint				37/6 35/- 120/- 60/- 86/6 50/- 23/6	Cwt do. Gallon do. do. do.
Ditto, fly nut and union Bib valves, crutch top screwed iron	9/9 10/9 8/3 9/3 10/3	15/3 11/9 13/3 15/9		8/- 4in	Distemper, Distemper, Enamel Gold Metall Heat Resisti Japan, black Knotting	ceiling washable lic Paint ing Paint	e :			37/6 35/- 120/- 60/- 86/6 50/- 23/6 40/-	Cwt do. Gallon do. do. do. do.
Ditto, fly nut and union	9/9 10/9 8/3 9/3 10/3	15/3 11/9 13/3 15/9 	26/- 7/- 2in 5/-	4in	Distemper, Distemper, Enamel Gold Metall Heat Resisti Japan, black Knotting Linseed Oil Boiled, ditte	ceiling washable lic Paint ing Paint				37/6 35/- 120/- 60/- 86/6 50/- 23/6 40/-	Cwt do. Gallon do. do. do. do. do.
Ditto, fly nut and union . Bib valves, crutch top screwed iron Ditto, but screwed boss Stop valves, screwed iron Ditto, screwed iron and union Ditto, double union Waste, plug chain and stay Caps and screws Sleeves, long	9/9 10/9 8/3 9/3 10/3	15/3 11/9 13/3 15/9 	26/- 7/- 2in 5/- 6/9	4in 11/-	Distemper, Distemper, Enamel Gold Metall Heat Resisti Japan, black Knotting Linseed Oil Boiled, ditte Proprietary	washable lic Paint ing Paint Paints (Paints (P	good el	255)—		37/6 35/- 120/- 60/- 86/6 50/- 23/6 40/- 12/6 13/3	Cwt do. Gallon do. do. do. do. do. do.
Ditto, fly nut and union Bib valves, crutch top screwed iron Ditto, but screwed boss Stop valves, screwed iron Ditto, screwed iron and union Ditto, double union Waste, plug chain and stay Caps and screws Sleeves, long Ditto, short Thimble	9/9 10/9 8/3 9/3 10/3 — 11in 2/9	15/3 11/9 13/3 15/9 	26/- 7/- 2in 5/-	4in	Distemper, Distemper, Enamel Gold Metall Heat Resisti Japan, black Knotting Linseed Oil Boiled, ditte	ceiling washable lic Paint ing Paint Paints (t good cl	255)—		37/6 35/- 120/- 60/- 86/6 50/- 23/6 40/- 12/6 13/3	Cwt do. Gallon do. do. do. do. do. do.
Ditto, fly nut and union . Bib valves, crutch top screwed iron . Ditto, but screwed boss Stop valves, screwed iron Ditto, screwed iron and union . Ditto, double union . Waste, plug chain and stay . Caps and screws . Sleeves, long . Ditto, short . Thimble .	9/9 10/9 8/3 9/3 10/3 — 11in 2/9 —	15/3 11/9 13/3 15/9 	26/- 7/- 2in 5/- 6/9 4/3	4in 11/- 6/9 10/7	Distemper, Distemper, Enamel Gold Metall Heat Resisti Japan, black Knotting Linseed Oil Boiled, ditte Proprietary Finishing Priming Undercoat	ceiling washable lic Paint ing Paint Paints (good cl	ass)—		37/6 35/- 120/- 60/- 86/6 50/- 23/6 40/- 12/6 13/3 47/- 50/- 53/-	Cwt do. Gallon do. do. do. do. do. do. do.
Ditto, fly nut and union Bib valves, crutch top screwed iron Ditto, but screwed boss Stop valves, screwed iron Ditto, screwed iron and union Ditto, double union Waste, plug chain and stay Caps and screws Sleeves, long Ditto, short Thimble	9/9 10/9 8/3 9/3 10/3 — 11in 2/9	15/3 11/9 13/3 15/9 — 11in 3/3 3/2 4/- 27/-	26/- 7/- 2in 5/- 6/9 4/3 5/-	4in 11/- 6/9 10/7	Distemper, Distemper, Enamel Gold Metall Heat Resisti Japan, black Knotting Linseed Oil Boiled, ditte Proprietary Finishing Priming Undercoat Paperhange	ceiling washable lic Paint ing Paint Paints (t good cl	ass)—		37/6 35/- 120/- 60/- 86/6 50/- 12/6 13/3 47/- 50/- 53/-	Cwt do. Gallon do. do. do. do. do. do. do. co. co. co. do. do. co. co. co. co. co. co.
Ditto, fly nut and union . Bib valves, crutch top screwed iron . Ditto, but screwed boss Stop valves, screwed iron Ditto, screwed iron and union . Ditto, double union . Waste, plug chain and stay . Caps and screws . Sleeves, long . Ditto, short . Thimble . Full way gate valves, hot pressed Lead 7 lb P. trap .	9/9 10/9 8/3 9/3 10/3 — 11in 2/9 —	15/3 11/9 13/3 15/9 11/10 3/3 3/2 4/- 27/- 11/10 6/11	26/- 7/- 2in 5/- 6/9 4/3 5/ 1lin 9/1	4in 	Distemper, Distemper, Enamel Gold Metall Heat Resisti Japan, black Knotting Linseed Oil Boiled, ditte Proprietary Finishing Undercoat Paperhange Petrifying li Putty	ceiling washable lic Paint ing Paint Paints (r's Paste	t good cl	ass)—		37/6 35/- 120/- 60/- 86/6 50/- 12/6 13/3 47/- 50/- 53/- 34/6 8/9 49/-	Cwt do. Gallon do. do. do. do. do. do. do. do. Cwt Gallon Cwt
Ditto, fly nut and union . Bib valves, crutch top screwed iron . Ditto, but screwed boss Stop valves, screwed iron Ditto, screwed iron and union . Ditto, double union . Waste, plug chain and stay	9/9 10/9 8/3 9/3 10/3 — 11in 2/9 —	15/3 11/9 13/3 15/9 11/10 3/3 3/2 4/- 27/- 11/10 6/11	26/- 7/- 2in 5/- 6/9 4/3 5/ 1in	4in 11/- 6/9 10/7 — 2in	Distemper, Distemper, Enamel Gold Metall Heat Resisti Japan, black Knotting Linseed Oil Boiled, ditte Proprietary Finishing Priming Undercoat Paperhange: Petrifying li Putty Size	ceiling washable lic Paint ing Paint Paints (t good cl	ass)—		37/6 35/- 120/- 60/- 86/6 50/- 23/6 40/- 12/6 13/3 47/- 50/- 34/6 8/9 49/- 9/3	Cwt do. Gallon do, do. do. do. do. do. Cwt Gallon Cwt Firkin
Ditto, fly nut and union Bib valves, crutch top screwed iron Ditto, but screwed boss Stop valves, screwed iron Ditto, screwed iron and union Ditto, double union Waste, plug chain and stay Caps and screws Sleeves, long Ditto, short Thimble Full way gate valves, hot pressed Lead 7 lb P trap Ditto, S. trap Lead 6 lb. P. traps with	9/9 10/9 8/3 9/3 10/3 — 11in 2/9 —	15/3 11/9 13/3 15/9 11/10 3/3 3/2 4/- 27/- 11/10 6/11	26/- 7/- 2in 5/- 6/9 4/3 5/ 1lin 9/1	4in 	Distemper, Distemper, Enamel Gold Metall Heat Resisti Japan, black Knotting Linseed Oil Boiled, ditty Proprietary Finishing Priming Undercoat Paperhange: Petrifying li Putty Size Terebine	ceiling washable lic Paint ing Paint Paints (Paints (P	t good cl	ass)—		37/6 35/- 120/- 86/6 50/- 23/6 40/- 12/6 13/3 47/- 50/- 34/6 8/9 49/- 9/3 16/-	Cwt do. Gallon do. do. do. do. do. do. co. do. Cwt Gallon Cwt Firkin Gallon
Ditto, fly nut and union . Bib valves, crutch top screwed iron . Ditto, but screwed boss Stop valves, screwed iron Ditto, screwed iron and union . Ditto, double union . Waste, plug chain and stay	9/9 10/9 8/3 9/3 10/3 — 11in 2/9 — —	15/3 11/9 13/3 15/9 	26/- 7/- 2in 5/- 6/9 4/3 5/ 1lin 9/1 11/3	4in 11/- 6/9 10/7 - 2in 12/10 15/9	Distemper, Distemper, Enamel Gold Metall Heat Resisti Japan, black Knotting Linseed Oil Boiled, ditte Proprietary Finishing Priming Undercoat Paperhange Petrifying li Putty Size Terebine Turpentine Varnish, oal	ceiling washable lic Paint ng Paints (Paints (r's Paste quid substitut k, copal,	good cl	255)—		37/6 35/- 120/- 86/6 50/- 23/6 40/- 12/6 13/3 47/- 50/- 53/- 34/6 8/9 9/3 16/- 6/3 33/-	Cwt do. Gallon do. do. do. do. do. do. Cwt Gallon Cwt Firkin Gallon do. do.
Ditto, fly nut and union Bib valves, crutch top screwed iron Ditto, but screwed boss Stop valves, screwed iron Ditto, screwed iron and union Ditto, screwed iron and union Waste, plug chain and stay Caps and screws Sleeves, long Ditto, short Thimble Full way gate valves, hot pressed Lead 7 lb P. trap Ditto, S. trap Lead 6 lb. P. traps with 3in seal Ditto, but 5. traps ditto Wire ballon guards, copper	9/9 10/9 8/3 9/3 10/3 — 1½in 2/9 — 19/—	15/3 11/9 13/3 15/9 11/10 3/3 3/2 4/- 27/- 11/10 6/11 8/7 7/9 7/9 13/3	26/- 7/- 2in 5/- 6/9 4/3 5/ 1in 9/1 11/3	4in 11/- 6/9 10/7 - 2in 12/10 15/9	Distemper, Distemper, Enamel Gold Metall Heat Resisti Japan, black Knotting Linseed Oil Boiled, ditty Proprietary Finishing Undercoat Paperhange: Petrifying li Putty Terebine Turpentine Varnish, oal Ditto, ditto	ceiling washable lic Paint ng Paints (r's Paste iquid substitut substitut	good cl.	ass)—		37/6 35/- 120/- 86/6 50/- 23/6 40/- 12/6 13/3 47/- 50/- 34/6 8/9 49/- 6/3 33/- 6/3	Cwt do. Gallon do. do. do. do. do. do. do. Cwt Gallon Cwt Firkin Gallon do. do.
Ditto, fly nut and union Bib valves, crutch top screwed iron Ditto, but screwed boss Stop valves, screwed iron Ditto, screwed iron and union Ditto, double union Waste, plug chain and stay Caps and screws Sleeves, long Ditto, short Thimble Full way gate valves, hot pressed Lead 7 lb P. trap Lead 6 lb. P. traps with 3in seal Ditto, but S. traps ditto Wire ballon guards, copper, Ditto, galvanized iron, 2in 1 Hair felt, 34in x 20in, 24 oz.	9/9 10/9 8/3 9/3 10/3 — 1½in 2/9 — — 19/–	15/3 11/9 13/3 15/9 11/10 3/3 3/2 4/- 27/- 11/10 6/11 8/7 7/9 9/7 in 3/3.	26/- 7/- 2in 5/- 6/9 4/3 5/ 1in 9/1 11/3	4in 11/- 6/9 10/7 - 2in 12/10 15/9	Distemper, Distemper, Enamel Gold Metall Heat Resisti Japan, black Knotting Linseed Oil Boiled, ditto Proprietary Finishing Priming Undercoat Paperhange Petrifying li Putty Size Terebine Turpentine Varnish, oa Ditto, ditto Ditto, whitt White lead	ceiling washable lic Paint ling Paints (Paints (r's Paste liquid substitut k, copal, outside, e. eggsh mixed r	good cl	ass)—		37/6 35/- 120/- 86/6 50/- 23/6 40/- 12/6 13/3 47/- 50/- 53/- 49/- 9/3 34/6 6/3 33/- 49/- 4	Cwt do. Gallon do.
Ditto, fly nut and union Bib valves, crutch top screwed iron Ditto, but screwed boss Stop valves, screwed iron Ditto, screwed iron and union Ditto, double union Waste, plug chain and stay Caps and screws Sleeves, long Ditto, short Thimble Full way gate valves, hot pressed Lead 7 lb P. trap Ditto, S. trap Lead 6 lb. P. traps with 3in seal Ditto, but 5. traps ditto Wire hallon guards, copper	9/9 10/9 8/3 9/3 10/3 — 1½in 2/9 — — 19/– 2in. 3/-; 4i /10; 4in 2/ , 6/- sheet.	15/3 11/9 13/3 15/9 11/10 3/3 3/2 4/- 27/- 11/10 6/11 8/7 7/9 9/7 in 3/3.	26/- 7/- 2in 5/- 6/9 4/3 5/ 1in 9/1 11/3	4in 11/- 6/9 10/7 - 2in 12/10 15/9	Distemper, Distemper, Enamel Gold Metall Heat Resisti Japan, black Knotting Linseed Oil Boiled, ditte Proprietary Finishing Undercoat Paperhange Petrifying li Putty Size Terebine Turpentine Varnish, oa Ditto, ditto, ditto, ditto, ditto, ditto	ceiling washable lic Paint ing Paints (Paints (r's Paste iquid substitut k, copal, outside, eggsh mixed r	good cl.	ass)—		37/6 35/- 120/- 86/6 50/- 23/6 12/6 13/3 47/- 50/- 34/6 8/9 9/3 16/- 6/3 33/- 33/- 47/- 49/- 9/3 49/- 49/	Cwt do. Gallon do. do. do. do. do. do. do. fo. do. do. do. do. do. do. do. do. do. cwt Gallon Gallon do. do. do. cwt Firkin Gallon Cwt Firkin Gallon Cwt

9

Mosaies

SERVICES WATER HEATING B6/31

The "National" No. 20 instantaneous gas water heater has been designed for wall fixing by Sidney Flavel & Co. Ltd., Eagle Foundry, Leamington Spa. The working parts are totally enclosed in a detachable steel case, finished in white or cream vitreous enamel. The gas burner consists of twelve jets which do not normally require attention. For use with either hard or soft water, the "National" provides j. gallon (approx.) of hot water per minute. Periodical maintenance is recommended and for this purpose, by removal of a single nut, the heat exchange unit can be unhooked and cleaned in less than five minutes.



SERVICES LIGHTING FITTINGS B1/85

The "Hy-Ray" D.112 is a new semi-recessed window lighting fitting by the property of the prope



FITTINGS SOLID FUEL COOKING APPLIANCES C4/6

The new "Cotswold" solid fuel cooker is made by Sidney Flavel & Co. Ltd., Eagle Foundry, Learnington Spa. In addition to two capacious ovens it has three hotplates—fast boiling, boiling and simmering—and also provides 100 gallons of hot water daily. The agitator for the grate is constructed to prevent dust penetrating into the kitchen and the grate can be turned completely to dispose of clinker, etc. Hob size is 32in x 14in and the hotplates occupy 27in x 8½in. Finished in cream vitreous ename!



SERVICES WATER SUPPLY B4/27

A new "Master "range of water meters has been developed by George Kent Lid., Luton, Beds, as successor to the "M.T." range in sizes 1½, 2, 3 and 4in. Provides for the accurate measurement of water flow at temperatures not exceeding 120°F. The 4in size has a maximum of 100 million Imperial gallons, and the other three sizes have a maximum of 10 million Imperial gallons. May be calibrated in any deaired units. All meters are pressure tested to 250 p.s.i.

INDUSTRIAL NOTES

- ◆ The Marquis del Moral, chairman and founder of Claygate Fireplaces, Ltd., died at Salisbury, Southern Rhodesia, last week-end. He was 83 years old.
- ◆ The Fibre Building Board Development Organisation, Ltd. (FIDOR), has found it necessary to move from its present offices to larger premises at 47, Princes Gate, Kensington, London, S.W.7. Tel. Kensington 4577.
- ◆ The Council of Industrial Design has been responsible for furnishing and decorating the Unity flat, which will be on show in the Model Village at the Ideal Home Exhibition.
- Mr. A. G. Poole (Faldo Asphalte Co., Ltd.) was appointed chairman of the National Association of Master Asphalters on the reorganization about eighteen months ago, and he was reappointed at last year's annual general meeting.
- British firms who are interested in the possibility of exhibiting in the Brussels Exhibition in 1958 are asked to let the Board of Trade know by April 30 of this year. Such a notification will not commit them to taking part in the exhibition; definite booking of space will not be asked for until late 1956 or early 1957. The exhibition will be held from April 15 to October 15, 1958.
- The Road Research Laboratory is to hold open days this year at both the Materials and Construction Division at Harmondsworth, Middlesex, and the Traffic and Safety Division at Langley, Bucks. The dates fixed are Thursday, 12th and Friday, May 13. The Scottish Branch of the Laboratory at Thorntonhall, near Glasgow, will be open to visitors on Thursday, 2nd, and Friday, June 3.
- Jenolite, Ltd., the anti-corrosion and metal pretreatment specialists, of 13-10, Rathbone Street, London, W.1, announce the appointment of Mr. L. F. Parsons as Technical Sales Representative based on the London area.
- Sunvic Controls, Ltd., announce that they have appointed Mr. G. G. Harris, of "Lydstep," 20, Lawn Road, Rowley Park, Stafford (Tel. Stafford 1764), as their Midlands Representative for Process Control
- It is announced that Mr. Percy Donald has decided to relinquish the seat on the Distributors of Builders Supplies Joint Council which he has held continuously since 1935.
- Since 1935.

 F. Hills & Sons, Ltd., of Norton Road, Stockton-on-Tees, have opened a London branch office at 28, Victoria Street, Westminster, London, S.W.1, Tel. Abb. 6542, and also a door depot at Livingstone Wharf, 50, Ferry Street, Millwall, London, E.14. Mr. T. H. Homer has been appointed London branch manager.

 Philips Insulated Collegador's College.
- British Insulated Callender's Cables, Ltd., announce that the new address of their London Branch Sales Office is 10-14, White Lion Street, London, N.1. The telephone numbers are Terminus 8696 and 0372. It should be noted that the company's Central Administrative Offices remain at 21, Bloomsbury Street, London, W.C.1.

CORRECTION

The catalogue, described in Information Digest on February 2, 1955, of "Hotchkiss Lattice Construction," is No. LG9 and not No. 299 as printed. In the Mosaics column in the same issue, B3/64 was described as having a capacity of nine gallons. P. R. Weaver, Ltd., the manufacturers, point out that this should be nine pints.

. and for attractive flooring "PERMOLEUM" Lino Tiled Flooring is ideal for the floors and stairways of hospitals, hotels, public houses, canteens, offices, houses, etc., giving years of trouble-free service. It is hygienic, silent, warm to the feet and easy to clean. The colour is permanent and continuous throughout the thickness of the tile. "PERMOLEUM" Lino Tiles are available in many colours and can be laid on any dry, level and clean sub-floor, but an underlay of asphalt provides an ideal damp-proof foundation and is particularly recommended. Please send for our illustrated leaflet. **PERMOLEUM**

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who knows, John Ball, who knows?

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SUN-AIRE Venetian Blinds provide you with a means of regulating and controlling window light, converting harsh direct rays into a soft glow, adjustable at the touch of the hand. They have an all-the-year-round, night and day, utility, because control of window light is not their only use. When artificial lighting is in use, the slats reflect the light back into the room, giving better illumination. SUN-AIRE gives your rooms new charm and elegance. The appearance of your windows and the decor of your rooms will be enhanced by these practical and beautiful blinds—they are made to measure to your individual needs.



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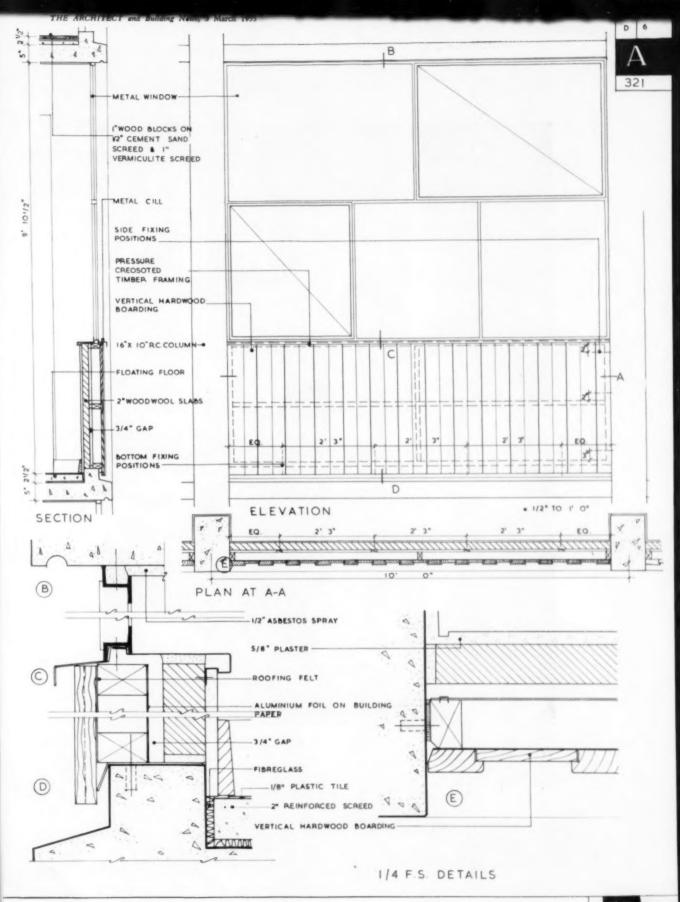


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WINDOW: TECHNICAL COLLEGE, COLCHESTER
H. CONOLLY, ARCHITECT TO ESSEX COUNTY COUNCIL

Notes below give basic data of contracts open under locality and authority which are in bold type. References indicate: (a) type of work, (b) address for application. Where no town is stated in the

• NEWS •

OPEN

BUILDING

ALDERSHOT B.C. (a) 3-storey block of 12 flats; 2-storey block of 8 flats; 20 aged person's bungalows and a pair of houses, on 4 sites. (b) Borough Engineer, Town Hall. (c) 2gns. (e) March 28.

BARNSLEY B.C. (a) 46 houses, Athersley North Estate; 54 houses, Athersley North Estate; 54 houses, Hunningley Lane Estate. (b) Borough Engineer, Town Hall. (c) 2gns. (e) March 28.

BERKHAMSTED U.C. (a) 44 single person's flats in 4 blocks. (b) Engineer and Surveyor, Civic Centre. (c) 2gns. (e) March 16.

BLACKBURN B.C. (a) 15 shops and flats, Higher Croft site; 4 shops and flats, Green Lane site. (b) Borough Engineer, Blackburn. (c) 2gns. (d) March 9.

BOLTON B.C. (a) 27 flats and houses, Bailey Lane Estate, Newby Road; 43 flats and houses, Phase 2 of Breightmet Neighbourhood Unit; 4 pairs of bungalows, Phase 1 of Breightmet Neighbourhood Unit. (b) Housing Director, Town Hall. (c) 2gns. each contract. (e) March 21.

BOURNEMOUTH B.C. (a) 14 houses, West Howe Estate. (b) Borough Architect (Room 106), Town Hall. (c) 2gns. (e) March 15.

BREDBURY AND ROMILEY U.C. (a) (1) advance preparation of site; (2) erection of 56 houses, Cherry Tree Estate. (b) Engineer and Surveyor, Council Offices, Bredbury, Ches. (e) 2gns. (e) March 12.

CARLISLE C.C. (a) Erection of further 4 classrooms, Margaret Sewell School. (b) City Surveyor, 18, Fisher Street. (e) March 18.

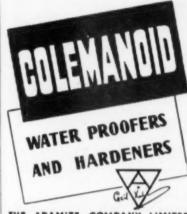
CARLISLE C.C. (a) Erection of the Pennine Way junior school, Carlisle. (b) City Surveyor, 18, Fisher Street. (c) 2gns (e) March 28.

DERBYSHIRE C.C. (a) Adaptation of staff cottage at proposed children's home, Belmont, near Chesterfield. (b) County Architect, County Offices, St. Mary's Gate, Derby. (c) 2gns cheque payable to Council. (e) March 15.

DORKING U.C. (a) Erection of a shop and 16 flats, 8 flats and 3 flats in a 3-storey and part 4-storey block, 72 houses and 12 bungalows, at second phase of Goodwyns Farm scheme (b) Council's Clerk, Council Offices, Pippbrook; with details of recent similar work carried out. (d) March 8.

GRANTHAM B.C. (a) 34 houses. (b) Borough Surveyor, Guildhall. (c) 2gns. (e) March 22.

ILFORD B.C. (a) 9 garages, Wensleydale Avenue. (b) Borough Engineer, Town Hall. (c) 2gns. (e) March 22. address it is the same as the locality given in the heading, (c) deposit, (d) last date for application, (e) last date and time for submission of tenders. Fur details of contracts marked * are given in the advertisement section.



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WINDOW: TECHNICAL COLLEGE, COLCHESTER

H. CONOLLY, ARCHITECT TO ESSEX COUNTY COUNCIL

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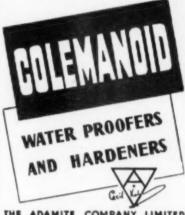
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LONDON—LEYTON B.C. (a) Block of 12 flats at 315-321, Lea Bridge Road, Leyton. (b) Borough Engineer, Town Hall, London, E.10. (c) 2gns. (e) March 21.

MAIDENHEAD B.C. (a) 12 houses, Spencers Estate. (b) Borough Engineer, 14, Craufurd Rise, (c) 2gns cheque payable to Council. (e) March 25.

MONMOUTHSHIRE C.C. (a) Erection of a metal workshop at the Technical Institute, New Tredegar. (b) County Architect, Queen's Hill, Newport. (c) 2gns cheque payable to Council. (e) March 22.

NEWCASTLE UPON TYNE C.C. (a) Alterations and adaptations to part of the former Princess Mary Maternity Hospital, Jubilee Road, to form 3 flats, medical room, kitchen, etc. (b) City Architect, 18, Cloth Market, 1. (e) March 23.

NEW FOREST R.C. (a) 30 houses, Calmore Road, Totton. (b) Engineer and Surveyor, Council Offices, Lyndhurst, Hants. (c) 2gns. (e) March 21.

N. IRELAND—FERMANAGH C.E.C.
(a) Erection of the Enniskillen secondary intermediate school. (b) H. M. Jones, 27, High Street, Enniskillen. (c) 4gns. (e) March 22.

N. IRELAND—NEWTOWNARDS B.C. (a) 12 dwellings, with site works, at Wallace's Street No. 1. (b) Town Clerk, Town Hall. (c) £3. (e) March 22.

N. IRELAND — NORTHERN IRE-LAND HOSPITALS AUTHORITY. (a) 8 houses and a bungalow, with services and site works, at Omagh. (b) Messrs. W. and M. Given, 3, Richmond Street, Londonderry. (e) 5gns. (e) March 21.

N. IRELAND—NORTHERN IRE-LAND HOUSING TRUST. (a) 208 dwellings and a shop, etc., at Braniel, Gilnahirk. (b) Trust Office, 12, Hope Street, Belfast. (c) £3. (e) March 16.

NORFOLK E.C. (a) Erection of the first instalment of the Drayton Voluntary Controlled School, providing for 3 class-rooms, cloakrooms, offices and site works. (b) Chief Education Officer, Education Offices, Stracey Road, Norwich. (d) March 9.

PRESTON B.C. (a) Supply and erection of structural steelwork for an initial portion of Ribbleton Hall secondary school. (b) Borough Engineer, Municipal Building. (e) March 21.

PRESTON B.C. (a) Extensions to Larches Primary School, including structure and site works. (b) Borough Engineer, Municipal Building. (c) 2gns. (e) March 17.

PRESTON B.C. (a) Extensions and alterations at Ribbleton Avenue Methodist School. (b) Borough Engineer, P.O. Box 10, Municipal Building. (c) 2gns. (e) March 15.

SCOTLAND—BATHGATE. (a) 44 houses at Falside, Bathgate, for Scottish Special Housing Association, Ltd. (b) Scottish Special Housing Association, Ltd., 15-21, Palmerston Place, Edinburgh, 12.







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CHEAP Chairs for Canteens, British Restaurants, Halls, etc. Personal attention given to all Orders.

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Calalogue e

SCOTLAND—INVERNESS C.C. (a) Additions to Breakish Primary School, Skye. Separate trades. (b) County Architect, The Castle, Inverness. (e) March 12.

SCOTLAND—INVERNESS C.C. (a) Primary school at Hilton, Inverness. Separate trades. (b) James Shankley, 2, Ness Walk, Inverness. (e) March 31.

SOUTHAMPTON B.C. (a) 3-storey nurses' hostel on site of 1, Archers Road. (b) Borough Architect, Civic Centre. (c) £1. (d) March 7. (e) March 31.

THIRSK R.C. (a) 2 pairs of houses and 2 garages and 1 lock-up shop, Sutton Road Estate. (b) Messrs. Needham, Thorp and White, 6, High Petergate, York. (c) 2gns payable to Council. (e) March 19.

TUNBRIDGE WELLS B.C. (a) Contract No. 12. 16 flats for aged persons, Sherwood Estate. (b) Borough Surveyor, Town Hall. (c) 2gns.

WELWYN R.C. (a) 38 houses, Queensway site. (b) Engineer and Surveyor, Council Offices, By-pass Road. (c) 2gns. (e) March 14.

WESTON-SUPER-MARE B.C. (a) 36 dwellings, Coronation Estate. (b) Town Clerk, Town Hall. (d) March 7.

WEST SUSSEX C.C. (a) (1) erection of first instalment of Steyning C.E. primary school, (2) erection of first instalment of Lancing, Houndstone Lane, primary school. (b) County Architect, County Hall, Chichester. (d) March 12.

WORKSOP B.C. (a) Erection of (1) 110 houses, Kilton Hill Estate; (2) 16 flats, Kilton Hill Estate; (3) 50 aged persons' bungalows, Valley Road Estate. (b) Borough Engineer, Park House. (c) 3gns each contract. (e) March 14.

MISCELLANEOUS

GLAMORGAN C.C. The Council is preparing a revised list of approved contractors for County building projects, providing for (a) works to cost more than £50,000; (b) to cost between £15,000 and £50,000; and (c) to cost between £1,500 and £15,000. Applications to County Architect, Glamorgan County Hall, Cardiff, by March 31.

PLACED

Notes on contracts placed state locality and authority in bold type with (1) type of work, (2) site, (3) name of contractor and address, (4) amount of tender or estimate. † denotes that work may not start pending final acceptance, or obtaining of licence, or modification of tenders, etc.

BRADFORD CORPORATION. (1) Secondary school. (2) Eccleshill. (3) Simms, Sons and Cooke, Ltd., Haydn Road, Sherwood, Nottingham, and Hills (West Bromwich), Ltd. (4) £202,727 and £52,002 respectively.

LONDON, E.C. (1) Reinstatement of Apothecaries Hall, for Society of Apothecaries. (2) Queen Victoria Street. (3) Turner and Cooper, Ltd., 4, Long Yard, Lamb's Conduit Street, London, W.C.1.

HIGH QUALITY WHITE FACING

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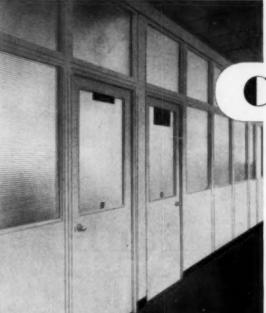
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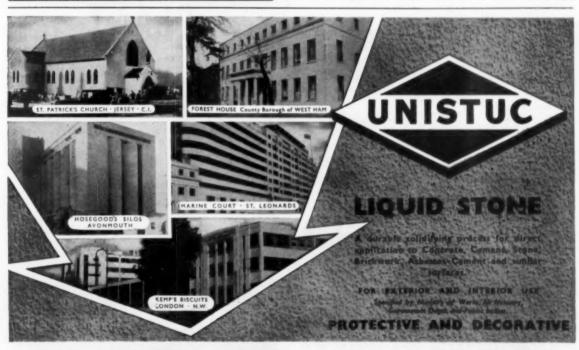
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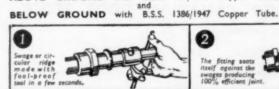
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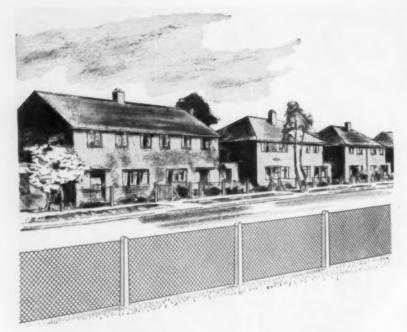
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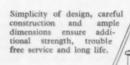
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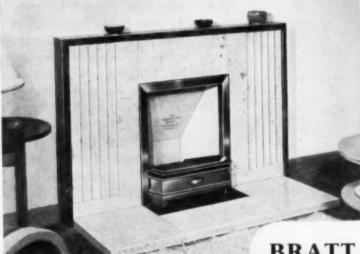
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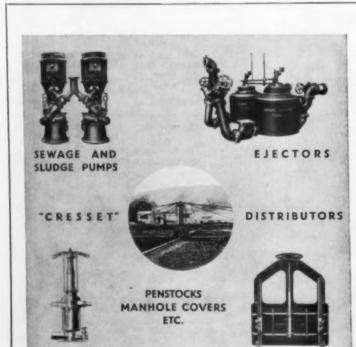
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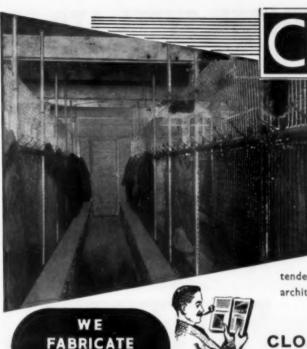


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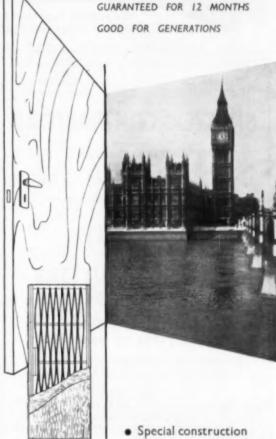
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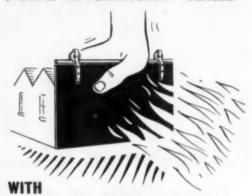
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Applications, stating age, qualifications, experience, present salary and giving the names if two referees, to be sent to the undersigned by March 12th, 1955.

L. GODDARD SMALLEY,

L. GODDARD SMALLEY Town Hall, WOKINGHAM, Berks. 25th February, 1955.

APPOINTMENTS—contd.

LONDON ELECTRICITY BOARD. STRUCTURAL ASSISTANTS & STRUCTURAL DRAUGHTSMEN.

STRUCTURAL DRAUGHTSMEN.

A PPLICATIONS are invited for the above positions in the Construction Branch of the Chief Engineer's Department in Central London.

Applicants for the positions of Structural Assistants in the Civil Engineer's Section should have experience in the design and detailing of either reinforced concrete or steelswork structures. Applicants for the positions of Structural Draughtsmen should have a knowledge of building constructional requirements and some knowledge in detailing reinforced concrete or steel structures.

The posts are graded under Schedule "D," National Joint Board agreement as Grade 5—E672 to £777 and Grade 6—£535 10s to £661 10s per annum respectively, inclusive of London Allowance. Commencing salaries will be dependent upon qualifications and experience.

Application forms obtainable from Personnel Officer, 46/7, New Broad St., London, E.C.2. to be returned completed by March 24th, 1955. Please enclose addressed envelope and quote ref. V/1919/AA on all correspondence.

A QUALIFIED Architect is required by a public company with a multiple factory organisation in the United Kingdom and British Commonwealth territories. The appointment will entail complete responsibility for building maintenance of the company's factories and houses. It will also involve control of all stages iff design and contracts relating to factory alterations and building extensions. Applicants must possess previous practical experience of factory building and cost estimating, as well as a flair for achieving good appearance with economy. The appointment is permanent and pensionable and the company's design office is situated in the N.W. Kent area. Please state age, full details of career to date, and salary expected.—Reply to Box 2284, c/o A. & B.N. [8853]

BOROUGH OF DARTFORD.

ARCHITECTURAL ASSISTANT.

A PPLICATIONS are invited for the appointment of ARCHITECTURAL ASSISTANT in the Borough Surveyor's Department, the salary to be in accordance with the National Joint Council's Scheme of Conditions of Service, Grade A.P.T.II

(£360-£640).

Candidates should have passed the Intermediate Examination of the R.I.B.A.; experience in Local Authority Housing Work would be an advantage. The Council will provide housing accommodation to married applicants, if required.

The appointment is subject to the Local Government Superannuation Acts, 1937 and 1953, and the successful candidate will be required to pass a medical examination. medical examination

Applications, stating age, training, qualifications, and experience of present and previous appointments, with copies of three recent testimonials, must be received by me not later than 19th March, 1955.

THOMAS ARMSTRONG, Town Clerk

Council Offices, DARTFORD, Kent.

BOROUGH OF WALTHAMSTOW.

SENIOR ASSISTANT ARCHITECT

APPLICATIONS are invited for the above appointment in the Borough Architect, Engineer and Surveyor's Department (F. G. Southgate, A.R.I.B.A., M.I.Mun.E., A.M.T.P.I., Borough Architect, Engineer and Surveyor') at a salary in accordance with A.P.T. Grade V (£780-£930, inclusive of London Weighting), with the commencing 'alary according to experience. Applicans must be Registered Architects. Applications, with names of two persons for reference, should be received by the undersigned not later than noon on Friday, 18th March, endorsed "Senior Assistant Architect."

G. A. BLAKELEY,
Town Hall,

Town Hall, Forest Road, Walthamstow, E.17.

APPOINTMENTS-contd.

COUNTY BOROUGH OF EAST HAM

TEMPORARY BUILDING INSPECTOR—GRADE II—£560-£640.
London Weighting is paid in addition. Salary in excess of the minimum may be paid according to qualifications and experience.
A subsistence allowance may be granted over a reasonable period to the person appointed if unable to obtain suitable housing accommodation, necessitating the maintenance of two homes.
Further details and application forms, returnable y 18th March, 1955, from the Town Clerk, Town Hall, East Ham, E.6

WORCESTERSHIRE COUNTY COUNCIL.

A PPLICATIONS are invited for two ARCHI-TECTURAL ASSISTANTS on the new Grade IV at an appropriate point within the salary scale £675-£825 per annum, on the permanent staff. Forms of application may be obtained from L. C. Lomas, F.R.I.B.A., County Architect, 14, Cautle Street, Worcester (V.211.)

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PRESS DAY Monday. Remittances payable to liffe & Sons Ltd., Dorset House, Stamford Street, London, S.E.I.

No responsibility accepted for errors.

ARCHITECTURAL APPOINT-MENTS VACANT

The engagement of persons answering these astroctisements must be made through the local office of the Ministry of Labour and National Service, etc., if the applicant is a man aged 18-64 or a woman aged 18-59 inclusive, unless he or she or the er player is excepted from the provisions of T Notification of Vacancies Order, 1952.

ARCHITECTS assistants required, good draughts-men; salary according to ability; 5-day week.— Telephone City 4086. [8848

SENIOR assistant required for general architectural practice.—Particulars to Haynes & Carpenter, 123-4, Newgate St., London, E.C.1. [885]

A SSISTANT Architect required. Salary £500
p.a. or thereabouts according to experience.
Apply by letter, giving full particulars, to Frederick
Gibberd, 8, Percy St., W.I.
[8824]

A SSISTANT required. Salary about £700.— A Write brief details Eric Lyons, F.R.I.B.A., M.S.I.A., Mill House, Bridge Road, Hampton Court, Surrey.

ARCHITECT'S Assistants required (1 stand 2 juniors) for West End office.—Vistating full particulars and salary required to 2085, c/o A. & B.N.

ARCHITECTURAL assistants required for work in Carlisle and Cumberland.—Apply, stating age, qualifications, salary required, with names of referees, Graham & Roy, 6, Paternoster Row, Carlisle.

SENIOR and Intermediate Architectural Assistants required, 5-day week.—Write or telephone, giving full particulars, including age and salary, to Hasker & Hall, Architects, 13, Welbeck St., W.I. (Welbeck 0061.)

ARCHITECTURAL assistants, intermediate standard, required immediately; more senior applicant would be considered for one position; salaries dependent on ability.—Smith-Woolley & Partners, Collingham, Newark, Notts.

ARCHITECTURAL Assistant about Intermediate standard required in private Architect's office, South Kensington. Tel. Ken. 3234 for
interview.—Bostock & Wilkins, 8, Cromwell Place,
S.W.7.

ARCHITECTURAL Assistant required of R.I.B.A. Intermediate or Final standard. Give details of qualifications, age, experience and salary required to H. & D. Hall, Architects, Masonic Buildings, Bangor, N. Wales.

ARCHITECTURAL APPOINT-MENTS VACANT—contd.

JUNIOR Assistant, starting at £10 per week, re-quired in leading Birmingham Office with interesting and varied work and superannuation scheme, Ability to drive car an asset.—Box 2204 (70 A. & B.N.

WELL-ESTABLISHED firm of London archi-tects urgently require first-class Assistants qualified or unqualified.—Write, stating particulars of training and experience, Box 2227, c/o A. & B.N. [8828]

DUSY firm of London architects require Senior Qualified Assistant interested and experienced in job management and site supervision, to take charge of a large contract in the Home Counties.—Apply, giving particulars of experience and salary required, Box 2228, c/o A. & B.N. [8829]

HORSHAM (Sussex) firm of architects required fied, and two Assistants, Intermediate and two Assistants, Intermediate standard. Reply, stating experience and salary required, Godman & Kay, FF.R.I.B.A., 13, North Parad Horsham, Sussex.

Horsham, Sussex.

A RCHTECTURAL assistants, senior and junior,
A required in busy office for varied and interesting work; please write stating age, experience and
salary required.—Martin & Martin & W. H. Ward,
P/A.R.I.B.A., 106, Colmore Row, Birmingham, J.
[885]

A VICTORIA office requires both jumor and intermediate grade architectural assistants, applicants should be interested in planning for modern industry, the presentation of schemes and the working up off details, etc.—Please reply stating previous experience and salary required to Box 1840, c/o A. & B.N. VICTORIA office requires both junior and

A RCHITECTURAL Assistants, Senior, required by Consulting Engineers for work in their Wimbledon Office and in Central London. Commencing salary £650 to £750 according to qualifications and experience.—The Coniston Company, Eagle House, High St., Wimbledon, S.W.19. Wim-1191.

A PPLICATIONS are invited for the position of Senior Architect with Consulting Engineers. Applicants should be registered architects, preferably members of the R.I.B.A. Commencing salary up to £1,200 p.a. according to qualifications and experience.—The Coniston Company, Engle House, High St., Wimbledon, S.W.19, Wim, 1191, [823]

High St., Wimbledon, S.W.19, Wim. 1191. [8823]
A RCHITECTURAL ASSISTANT required in City firm if architects and surveyors. Intermediate R.I.B.A. standard. Good draughtsman essential, preferably with some experience of contemporary design of interiors and shops. Write, stating particulars of previous experience and salary required, to: Vigers & Company, 4, Frederick's Place, Old Jewry, E.C.2. [880]

Frederick's Place, Old Jewry, E.C.2. [880]

To office in London, E.C., with widely varied practice. One must be Associate R.L.B.A., and preferably with not less than three years' practical office experience. The other must have passed Intermediate R.I.B.A.—Reply, giving age, full particulars of qualifications and experience, and stating salary required.—Box 2279, c/o A. & B.N. [8843]

required.—Box 2279, c/o A. & B.N. [88-2]

LONDON architects with large general practice in all parts of the country have vacancies for architectural assistants of both senior and intermediate R.I.B.A. standard, excellent opportunities offered assistants to gain experience and to take responsibility, varied and interesting work, pension scheme.—Particulars of experience, qualifications, age and salary required, to Box 2283, c/o A. & B.N.

THERE are vacancies for architectural assistants of varying standards in a busy office near Victoria Station; salary for suitable male or female applicants will be based on ability and experience; the positions will give those interested in schemes designed and constructed in a contemporary manner opportunities to work through all stages from the preliminary design presentation to contract completion.—Please write Box 2069, c/o A. & B.N. [8306

A RCHITECTURAL ASSISTANTS required immediately in Architect's Dept., at Head Office. Varied and interesting work with good opportunities for advancement. Permanent appointments with salaries from £600 to £800 per annum according to qualifications and experience. Applicants should write, giving brief particulars of qualifications and experience, to Chief Architect. George Winapey & Co., Ltd., 27, Hammersmith Grove, London, W. 6. (Envelopes to be marked "Architectural Vacancies.")

"Architectural Vacancies.") [9817]

A PPLICATIONS are invited for appointments in south-west England with designers and manufacturers is new traditional buildings:—(a) Chartered Architect as deputy to Staff Architect. Applicants must have good practical experience, and be capable of taking charge of Drawing Office Staff; (b) Constructional Draughtsmen with sound knowledge of general building construction; (c) Draughtsman for design is Roads and Sewerage for new Housing Estates, with knowledge and experience if run-off calculation, sewer discharges, etc.

FULL particulars of qualifications, age, experience and salary required to Box 2089, c/o A. & B.N. [8810]

SITUATIONS VACANT

The engagement of persons answering these advertisements must be made through the local office of the Ministry of Labour and National Service, etc., if the applicant is a man aged 18-64 or a women aged 18-95 inclusive, unless he or she or the Apployer is excepted from the provisions of The Natification of Vacanties Order, 1952.

REQUIRED by West End London Architects, young assistant with practical experience of detailing. Keen interest more important than qualifications.—Box 2088, c/o A. & B.N. [881]

A SSISTANT required in busy practice in West End, in early '20s, about Intermediate R.I.B.A. standard; excellent opportunities of gaining all-round experience.—Box 0672, c/o A. & B.N.

A RCHITECTURAL Assistants required for st architects' department at head office of Dol Shoe Co.; qualifications: Inter. R.I.B.A.; te interest in contemporary store design and e thusiasm for hard work.—Apply to Dolcis Sh Co., 7-13, Great Dover St., S.E.I. [88]

STRUCTURAL Draughtsmen required for a Rootes Group Company. Experience of building alterations and a knowledge of structural steelwork would be an advantage.—Send full details to The Secretary, British Light Steel Pressings, Ltd.. Warple Way, Acton, W.3, or 'phone She. 1230.

EXPERIENCED Estimator, willing to assist in supervision, required by old-established building contractors (over 50 years) specialising in public and industrial works; large private clientele.—Reply, giving full details of experience and salary required, to O. P. Drever & Son (Kettering), Ltd., Roundhill Rd., Kettering, Northants.

CLERK of Works required for modern large-cale factory extensions; resident post, no travelling involved; prospects of permanency.— Apply in writing stating age, qualifications and ex-perience and salary required, to Personnel Superin-tendent, Morris Motors, Ltd., Tractor and Trans-missions Branch, Wolseley Works, Ward End, Birmingham, 8.

A RCHITECTURAL Assistants required by B.B.C. in London for work on design of studio, transmitter and office premises; candidates should be up to Intermediate or Final R.I.B.A. standard and have had some design office experience; salary in scales £545 to £755 or £645 to £880 according to qualifications and experience.—Requests for application forms to Engineering Establishment Officer, Broadcasting House. London, W.I. within seven days, quoting Ref. E.22. A. & B.N. quests for applishment Offi W.1, within A. & B.N.

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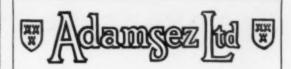
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Clark Hunt & Co. Ltd. Clark Hunt & Co. Ltd. Claughton Bros. Ltd. Clement Bros., Haslemere, Ltd. Closkroom Equipment Ltd.	40	Heywood, W. H., & Co. Ltd.	.B.C.	Pilkington Tiles Ltd	=	Vardale Fencing Co. Ltd Veitchi Company Ltd., The Vulcanite Ltd	-
Claughton Bros. Ltd.		High Duty Alloys Ltd.	-	Pollard, E., & Co. Ltd	-	Vulcanite Ltd.	_
Clonkroom Equipment Ltd	43	Hills, F., & Sons Ltd.	x	Potter Rax Ltd	12		
Coal Utilisation Council Coles Products (Sales) Ltd.,	omens.	Hillis (West Bromwich) Ltd Holland & Hannen	-	Pyrotenas Ltd	-	Walker Crosweller & Co. Lad. Ward, Thos. W. Ltd. Wates Ltd. West, A. & Partners	3
Colthurst Symons & Co. Ltd. Compactorn Ltd.	5000	and Cubitts Ltd		Radiation Group Sales Ltd	-	West, A. & Partners	39
Condrup Ltd.	-			Raines & Porter Ltd		West's Piling & Construction Co. Ltd.	24
Conex-Terna Ltd.	*****	Home Fitting (G.B.) Honeywell-Brown Ltd. Hope, Henry, & Sons Ltd.	-	Rawlings Bros. Ltd. Redparth Brown. Reliable Plywood Co. Ltd. Reparations-Dreyfus Ltd. Reynolds, H. & L., Ltd. Ringmer Building Works Ltd. Roller Shutters Ltd.	-	Whitehall Theatre	1
Costain, Richard, Ltd. Coverite (Asphalters) Ltd. Cox, William J. Ltd. Coxens Ventilators Ltd.	40	Hope, Henry, & Sons Ltd	_	Reparations-Dreyfus Ltd.	_	Williams, John & Sons (Cardiff)	
Cox, William J. Ltd.	20	Hotchkiss Engineers Ltd. Hunter, Douglas, Holland	-	Reynolds, H. & L., Ltd Ringmer Building Works 1 ad	33	Wood, Edward & Co. Ltd	8
		(Luxaflex)	22	Roller Shutters Ltd.	-		
The Crossman W. & Source	=	Ibetock Brick & Tile Co. Ltd	24	Ronuk Ltd.	_	Yorkshire Copper Works Ltd., The	_
The Crossman, W., & Sons Crudens Ltd. Cullum, H. W., & Co., Ltd.	-	Illiffe & Sons Ltd Imperial Chemical Industries	-	Roller Shutters Ltd. Roller Shutters Ltd. Rollyat Tank Co. Ltd., The Ronuk Ltd. Rose Salisbury & Co. Ltd. Rubber Improvements Ltd. Rubber Ltd. Rubber Ltd. Rubber Ltd. Rubber Ltd.	33		-
Cunum, H. W., & Co., Ltd	-	Ltd	7	Ruberoid Co. Ltd. The	****	Zinc Development Association	-



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INDIA'S TALLEST BUILDING

HENLEY RISING MAIN SYSTEM

This massive thirteen-storey reinforced concrete structure, with an adjoining 6-storey building, provides office accommodation for the Supplementary West Bengal Secretariat in Calcutta. With an approximate floor space of 247,000 sq. ft., the demands for electricity for lighting and power are considerable and it is noteworthy therefore, that the Henley Rising Main System has been installed.

The system incorporates all the components necessary for the complete supply installation, and solves the problem of electricity distribution in modern blocks of flats, multi-floored commercial buildings and other similar installations.

The top floor distribution box with cover removed (note the duplicate earthing)

An intermediate floor distribution box (the fuses and insulating shields are removed)

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